

BUSINESS WEEK

SEPT. 25, 1948



Harlow H. Curtice: Steps up to a new high runa on the G. M. ladder (page 6)

BUSINESS
WEEK
INDEX

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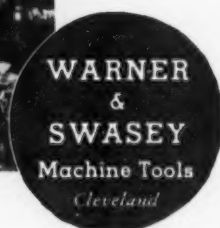
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If we can set just one boy straight—

IF THESE MESSAGES can get even one confused American boy, with ears assaulted by the twisted ideologies of the world, to think through to the truth . . . if they can make him *know* he can be paid in this world only out of what he produces *for* the world . . . that he can go as far and as fast as his abilities and willingness to work will let him, but that no one can ever give him something for long which he does not earn . . . that both the lust for power and the surrender to power are admissions of weakness . . . that no force on earth can stop for long the principle that you prosper only by giving a little more than you get . . . that the horizons of opportunity are exactly as broad as your mind and heart will make them . . . that prosperity and peace and satisfaction come only from honest cooperation . . . and—finally—*any* misunderstanding can be cured by honest effort . . .

. . . if we can set just one American boy straight in his thinking, here's one bunch of business men who will feel they have done something just as important as making even the finest turret lathe in history.



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THE TALE OF THE SAD BUSINESS MAN!

by Mr. Friendly



Mr. Friendly said, "No wonder you're pale
Walkin' around with that sad, sad tale
But here's the way to cut your spending . . .
Give your tale a happy ending!"

(American Mutual still offers you the opportunity
to save 20% on premiums . . . a savings for business
men that amounted to more than 8 million dollars
last year alone.)

(And our special I.E. Loss Control* service, the
greatest extra in insurance, has reduced costly
accidents, high premiums, and production costs
for hundreds of industries!)

Well, the man signed up . . . now his tale is gay
And it reads this way:

"I'm the waggingest tale in the U.S.A.
Since A.M. took my cares away!"

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P. S. Ask your local American Mutual man to show you
"The 40 Convincing Cases." See how I.E. Loss Control can
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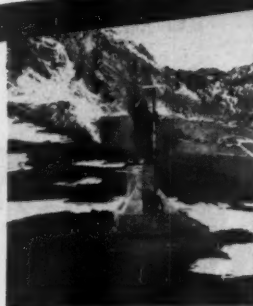
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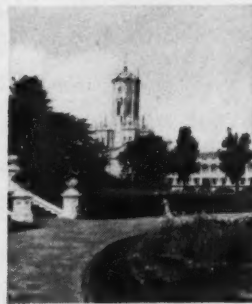
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THE COVER

The newest executive vice-president of General Motors Corp., Harlow H. Curtice, could step right into the movie role of a big business executive. He looks the part—carefully groomed, impressive, quiet, knowing.

• **Youthful Prodigy**—Curtice—known to intimates as "Red," because of his sandy hair—broke into the automobile business with AC Spark Plug Co. in February, 1914; a year later, at 21, the Michigan-born youth was promoted to comptroller. He rose through the AC ranks until, in 1929, he was made president of the company—by then a division of General Motors Corp.

Four years later he went to Buick as general manager. In May, 1940, he was elected vice-president of G. M., and in August of that year was appointed a corporation director.

His step-up last week to executive vice-president brings him to a Detroit headquarters from Flint for the first time. The new assignment: He will supervise all corporate distribution, styling, engineering, personnel, employee and public relations, purchasing.

• **More to Follow**—Curtice became 55 a month ago. As the youngest executive vice-president with car division background, he is obviously a major prospect for larger responsibilities. His transfer to Detroit has been foreshadowed by recent events: During the past year, for example, he participated with the G.M. negotiating team in its dealings with unions.

Curtice put Buick in fourth place in the industry; today it's a contender for third position. Such a sales volume, outsize for a medium-to-high-priced car, demonstrates better than anything else Curtice's administrative ability.

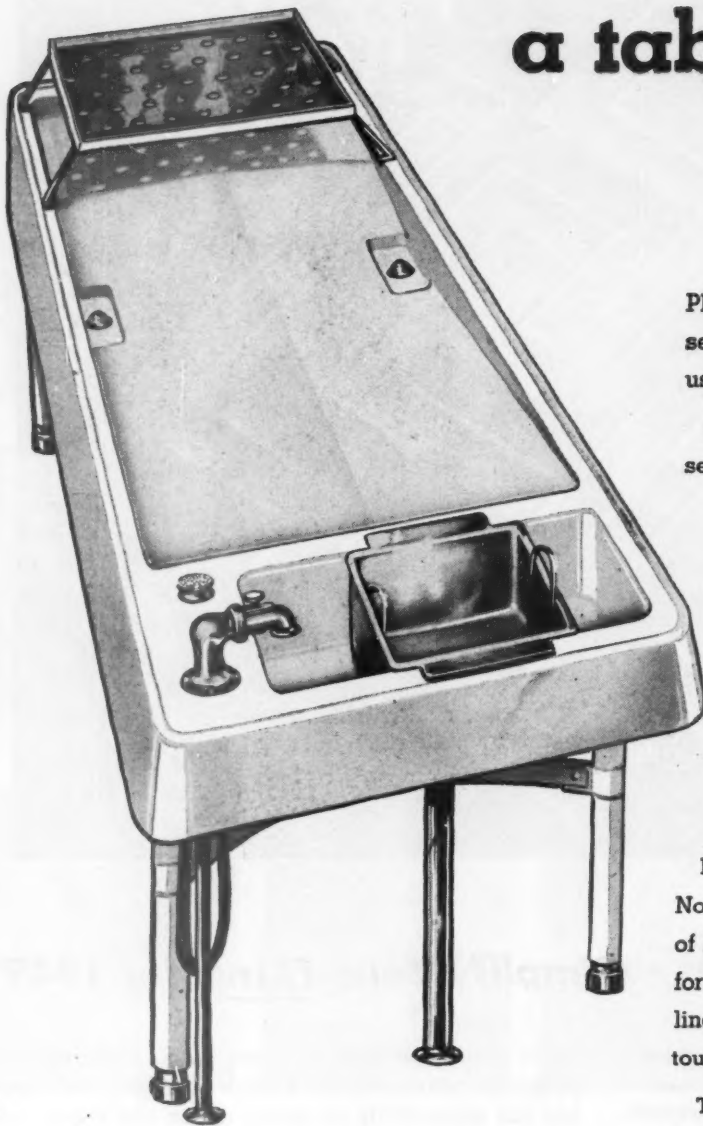
Curtice is expected to use in his new activities the same formulas which brought him success at Flint—good teamwork, expert staffing, quiet and efficient progress. He'll judge performance by standard: results.

—Complete story on General Motors executive shifts starts on page 24

Remington Rand

THE FIRST NAME IN BUSINESS SYSTEMS

Did you ever see a table like this?



PROBABLY NOT. Because this kind of table is seldom on public view. It's an autopsy table . . . used for post mortem examinations.

It's manufactured by American-Standard. And serves as a graphic example of the variety and specialization of the American-Standard line of heating equipment and plumbing fixtures.

We make heating equipment and plumbing fixtures for all the normal and regular needs, yes. But we also make them for scores and scores of special needs which you might not think of once in a lifetime.

No other manufacturer has so complete a line. No other manufacturer offers such a wide variety of both heating equipment and plumbing fixtures for everything from a tiny home to a transatlantic liner, from hospitals and schools to hotels and tourist courts.

This is one reason, we think, why American-Standard is "First in Heating and Plumbing." American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.

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BUSINESS OUTLOOK

BUSINESS WEEK

SEPTEMBER 25, 1948



Wall Street is showing distinct uneasiness about profits in 1949.

That has had a lot to do with the stock market's inability to get any place since the "bull market signal" three months ago (page 100). It had a lot to do with the sharp and disturbing spill at the start of this week.

Market analysts don't figure this means any deep dip in business. But they do think that break-even points will begin to mean something by next year; up to now, these have just been something to talk about.

Worry centers mainly on consumers' ability to pay present prices. If they can't, prices will be tested and profits could suffer.

Air pockets in commodity prices are bound to create inventory problems for affected companies. The recent sharp spills in cottonseed oil and wool—following those in grains and cotton—provide examples.

These haven't spread into industrial prices generally. Yet they are disquieting samples of what might happen. Shades of 1920!

Bulwarks of the price structure, as far as free markets go, are the metals—both ferrous and nonferrous.

Only in rare cases is there enough metal to go around. And renewed emphasis on stockpiling is a virtual guarantee against any early surplus.

Nothing but a rush of imports would cause the metal trades to fret.

Supplies of lead are, if anything, tighter than ever. But the end of the St. Joseph Lead strike this week should at least help a little.

Nobody makes much of the decline of lead consumption in May (from about 90,000 tons of primary and secondary in April, to 81,000 in May). No single line was down notably, and use apparently has picked up again.

Even storage batteries seem to be going as strongly as ever. They no longer are hard to get at retail, yet manufacturers report no slackening in demand. Some argue that old cars are hard on batteries.

Peak needs for lead as paint pigments may be behind us. Even so, the high level of construction assures a healthy market for some time.

Competitive materials are creeping in as cable coverings. But time will have to test the permanence of these changes on a price-quality basis.

Renewed talk of aluminum shortages may be discounted somewhat. At least, that is the story told by today's market conditions.

Demand is very large, to be sure. Yet producers have surprised most observers by their ability to increase output. Neither floods in the Northwest nor threatened power shortages have set them back too much.

The results may be judged from the scrap market. Most of the premiums recently paid for secondary aluminum have disappeared.

Aluminum output isn't apt to be snagged any time soon by lack of the basic raw material. Both domestic production and imports of bauxite in the quarter ended June 30 were the highest since the war.

Output in this country was 368,000 long tons. The closest postwar approach to that was 323,000 in the third quarter of 1946.

Imports topped 600,000 tons against a 1947 high of 510,000.

Meetings in Washington next month on metals stockpiling will merely formalize a system that's already beginning to function. Specific quantities

BUSINESS OUTLOOK (Continued)

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of critical metals will be supplied to the government monthly by domestic producers.

Fortunately, the government has given up asking for a great deal. And industry is glad to comply now so as to avoid bigger demands later.

Another thing that will aid the "free" market: The stockpilers are willing to settle commitments rather than commodities.

•
Better crops in Europe don't mean that U. S. exports will fade away.

Latest Dept. of Agriculture figures indeed show a fine comeback in western Europe. Potatoes will be more plentiful than before the war; bread-grain supplies are 37% above last year, only 12% below prewar.

But bread grains in Belgium, France, Italy, the Netherlands, and the United Kingdom still will fall 40-million to 50-million bu. short of the 1935-39 average.

And, from 1935 to 1939, those countries imported 300-million bu. a year.

Thus, in these five countries alone, there is a shortage of about 350-million bu. of grain this year by prewar standards. Allow for growth in population, and the market is a pretty sizable one.

•
Cotton, as well as corn, is going to pose a storage problem this year.

The trouble is not the size of the crop alone. It is partly that a lot of cotton isn't going to move promptly into trade channels; much will be stored under government loan while growers wait—and watch prices.

Normally, loan cotton would go into warehouses. But this year there apparently isn't enough warehouse space available.

In any event, Uncle Sam has decided to loan on farm-stored cotton. This is normal procedure for grain, but it's the first time for cotton.

•
Current conditions in the textile trade leave some doubt that we will consume as much cotton this season as the 9.1-million bales of domestic fiber used in the year ended last July 31.

However, the first month of the new season showed a gain. Consumption in August was 738,732 bales against 712,864 in the same 1947 month.

•
Exports aren't helping the sick price situation in the fats and oils.

Allocations for export in the fourth quarter this year total 165-million lb. Last year, the allocation was 453-million lb. Enough soybeans and peanuts to yield 88-million lb. of oil also will be set aside for export.

•
Consumers have some hope of lower clothing prices from the slump in wool. The price has dipped from around \$2 a lb. to \$1.70 in two months.

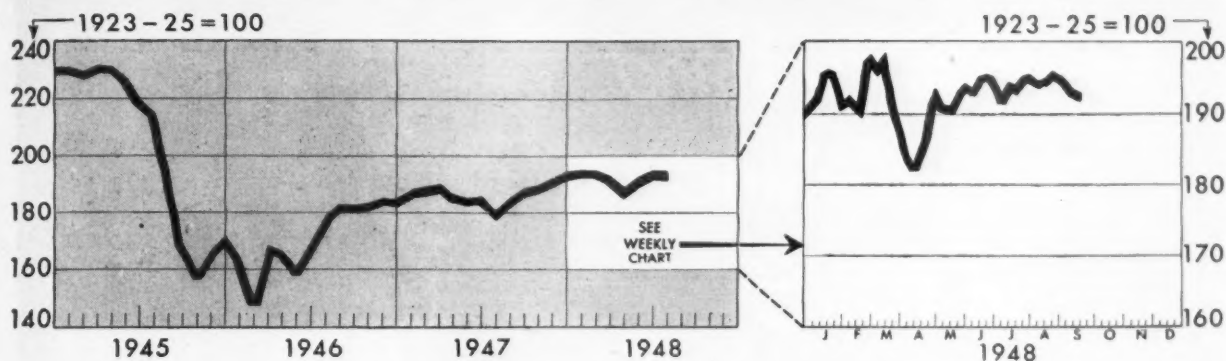
Labor costs are slightly higher in wool than in cotton textile manufacturing. Even so, with wool selling at \$1.70 a lb. against 31¢ for cotton, raw material is an important item in cost of wool fabrics.

•
Steady growth of manufacturing inventories continues to contribute to over-all business activity. And it also adds to the danger if prices slide.

Manufacturers' stocks rose about \$175-million in July, reaching a total of \$31.1-billion.

All inventories—trade and retail, as well as manufacturing—hit \$51.7-billion, rising by about \$400-million during July.

FIGURES OF THE WEEK



Business Week Index (above)

\$ Latest Week	Preceding Week	Month Ago	Year Ago	1947 Average
*192.8	†193.2	195.9	187.7	162.2

PRODUCTION

Steel ingot operations (% of capacity).....	96.1	96.1	95.9	94.1	97.3
Production of automobiles and trucks.....	93,119	†78,677	113,324	109,734	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$23,360	\$23,138	\$23,346	\$21,513	\$19,433
Electric power output (million kilowatt-hours).....	5,426	5,166	5,391	4,977	3,130
Crude oil (daily average, 1,000 bbls.).....	5,294	5,346	5,521	5,200	3,842
Bituminous coal (daily average, 1,000 tons).....	2,155	†1,997	2,082	2,101	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars).....	84	85	82	88	86
All other carloadings (daily average, 1,000 cars).....	64	64	67	66	52
Money in circulation (millions).....	\$28,156	\$28,287	\$27,979	\$28,633	\$9,613
Department store sales (change from same week of preceding year).....	-2%	+16%	+15%	-1%	+17%
Business failures (Dun & Bradstreet, number).....	84	83	94	73	228

PRICES (Average for the week)

Cost of Living (U. S. Bureau of Labor Statistics, 1935-39 = 100), July ...	173.7	171.7	158.4	105.2
Spot commodity index (Moody's, Dec. 31, 1931=100).....	420.7	421.4	424.9	429.0	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	277.6	†278.1	278.3	272.0	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	340.2	345.0	348.9	380.4	146.6
Finished steel composite (Steel, ton).....	\$93.86	\$93.86	\$93.86	\$75.41	\$56.73
Scrap steel composite (Iron Age, ton).....	\$43.16	\$43.16	\$43.16	\$37.75	\$19.48
Copper (electrolytic, Connecticut Valley, lb.).....	23.500¢	23.500¢	23.500¢	21.500¢	12.022¢
Wheat (Kansas City, bu.).....	\$2.22	\$2.20	\$2.18	\$2.72	\$0.99
Sugar (raw, delivered New York, lb.).....	5.61¢	5.66¢	5.76¢	6.32¢	3.38¢
Cotton (middling, ten designated markets, lb.).....	31.28¢	31.24¢	30.89¢	31.44¢	13.94¢
Wool tops (New York, lb.).....	\$1.640	†\$1.174	\$1.780	\$1.745	\$1.281
Rubber (ribbed smoked sheets, New York, lb.).....	23.02¢	†22.85¢	23.08¢	16.62¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.).....	124.1	125.4	127.2	119.9	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's).....	3.46%	†3.46%	3.45%	3.26%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's).....	2.84%	2.84%	2.84%	2.63%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average).....	1½-1½%	1½-1½%	1½-1½%	1½-1½%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1½-1½%	1½%	1½%	1%	½-½%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	47,446	46,932	46,746	47,498	††27,777
Total loans and investments, reporting member banks.....	63,718	63,291	63,399	64,714	††32,309
Commercial and agricultural loans, reporting member banks.....	15,183	14,931	14,872	12,858	††6,963
Securities loans, reporting member banks.....	1,519	1,491	1,431	1,899	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks....	34,744	34,652	34,904	39,022	††15,999
Other securities held, reporting member banks.....	4,475	4,416	4,405	4,309	††4,303
Excess reserves, all member banks.....	1,810	1,020	770	1,055	5,290
Total federal reserve credit outstanding.....	21,921	21,834	22,125	22,394	2,265

*Preliminary, week ended September 18th.

†Revised.

††Date for "Latest Week" on each series on request.

†††Estimate (B.W.—Jul. 12 '47, p. 16).

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Fingering the "keyboard" of this switch panel, one man controls the flow of coal being washed, graded, and poured into waiting railroad cars at a modern mine preparation plant.

Yes, aboveground as well as below, mechanical power replaces human muscle in America's progressive mines. *Machinery* makes the job easier, safer, and more productive. In fact, the American coal miner now produces more tons per day by far than the miner of any other nation.

To continue this production record and meet increasing demands for coal, the industry will have to spend over half a billion dollars in the next three years alone in improving existing mines and opening new ones. This is over and above the increasing day-to-day costs of mine operation—and a large part must come out of earnings.

Only by such expenditures for new machines can the coal industry pay its workers the average weekly wage which now is the highest of *any* major industry. Only by such expenditures for opening new mines can it assure adequate future production of *high quality* coals. And only by such expenditures for new mining methods can it reduce costs that are reflected in the price of coal.

Adequate earnings plowed back into the business will help make possible an even greater supply of coal at reasonable prices—to the benefit of the nation and the coal industry alike.

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WASHINGTON OUTLOOK



TRANS-ARABIAN PIPELINE squabble is building up again. A decision on whether to continue construction of Arabian-American Oil Co.'s project must be made within the next few weeks.

The issue comes down to this: Can the economy at home stand a 50,000-ton whack out of its tight steel supply over the next three months? This is about what it'll take to get the pipeline moving westward again to its terminus on the Mediterranean (page 117).

There has been a three-month layoff on shipments of pipe, since Sen. Wherry's small business committee jawboned the Administration into a truce. Commerce Secretary Sawyer promised then that he would grant no export licenses during the July-September quarter. It was a victory for domestic users: 90,000 tons of steel that would have gone into Middle East pipe went into utility pipelines and barge building here at home.

Now it's a safe bet that Commerce will give a green light to Aramco to resume shipments. Wherry will kick up another fuss, but he won't fare so well this time.

Marshall and Forrestal are again pressuring for the pipeline—to get more oil to fuel ECA countries and the U. S. fleet; Krug wants the oil to ease the drain of record peacetime consumption on Western Hemisphere supplies. They have again formally urged Commerce to O.K. export licenses.

Any allocation at all to Aramco in the next quarter amounts to a promise that it will get the 200,000-odd tons needed to finish the pipeline—sometime in 1950. What's ahead is the long hop to Sidon on the western end.

Note: Aramco has already told Consolidated Steel Corp. to start making 30-in. pipe again for the project.

A THREE-MAN EXPEDITER TEAM to hustle up manganese imports from Africa and India is being sold to the National Security Resources Board. The team would go over the heads of other government people right to foreign mining and transport with this proposition:

You show that you can increase production, and in return you'll get the transport equipment and machinery that you have been wanting from the U. S.

The expeditors would be "big name" men from business—men who could do some shoving,

if need be. Two would go abroad; their colleague would stay home to keep the Washington lines cleared.

The idea has a lot of appeal in NSRB. Its minerals people find no comfort in the fact that 20% of U. S. manganese imports comes from Russia.

The object of the expeditor proposal: get the ball rolling on at least one vital commodity while ECA's Strategic Materials Division is still in the negotiations state (BW-Sep. 18'48, p25).

ECA is working with colonial representatives on agreements for expanded production of such materials as graphite, manganese, mica, lead, cobalt, bauxite, asbestos. It'll take a couple of years, though, before the program will pay off in any marked increase in U. S. imports.

Beyond this, ECA people saddled with the job are talking about setting up an RFC-like government agency to go in and spend where private capital won't. This would take new legislation—which would run head-on into the western mining bloc.

COMMERCE SECRETARY SAWYER has just sent a two-man fact-finding board overseas to get him the straight stuff on Europe's food outlook. One is Loring K. Macy, Commerce's top man on food exports; the other is Charles N. Silcox of the New York State farmers' big Cooperative G.L.F. Exchange.

He'll use their reporting in the next round of his give-and-take with Agriculture Secretary Brannan over how much of this year's grain crop the U. S. ships to Europe (BW-Aug. 21'48, p15). Sawyer has been beating the drum for cutting back on ECA's food shipments, spending more on machinery.

A HUNDRED GERMAN PLANTS are on the latest list available for reparations. It's the biggest so far, and includes iron-and-steel, engine, construction-equipment, and plastics facilities.

Of course, deals can't be closed until the plants are allocated by the 19-nation Inter-Allied Reparation Agency at Brussels. The fact that ECA and the State Dept. are now mulling over the whole reparations problem is stymying allocations.

ECA boss Hoffman, for instance, thinks that some of the plants now tagged for dismantling would help European recovery more right where they are. He has authority to pick those he would like to have stay in Germany. It's Marshall's job

WASHINGTON OUTLOOK (Continued)

to nail them down by "negotiation" with the other claimants.

U. S. industries have never been much interested in German plants. The biggest item purchased so far was an aluminum-foil plant that Kaiser's Permanente Metals Corp. got for \$203,000. But Commerce has asked industries to come in and make their bids on the latest list, anyway.

• De Gaulle barometer: The French Embassy's eagerness this week to open its doors to Pierre de Gaulle. Once inside, he trumpeted to the U. S. press that his brother is coming into power. . . .

• Frank Banks, chief of the Interior Dept's Columbia Basin project, has been tapped for the next Commissioner of Reclamation. He's an engineer, and has both Republican and Democratic backing from westerners. . . .

• Want a \$10,000-a-year job? There are more than 50 of them in government for those who can afford to take that kind of gamble on the election.

OUTLOOK FROM ALBANY

ABOARD DEWEY CAMPAIGN TRAIN—Reciprocal trade will remain U. S. policy under a Dewey administration.

And so will farm-price supports—including a government guarantee at 90% of parity for basic crops and some others through next year.

These things Dewey already has made clear.

His tariff position came in the form of a distinct rebuff to the high-tariff, protectionist wing of American industry.

Emissaries went to Albany even before the campaign formally opened to argue the protectionist case. Dewey pointed to the 1948 G.O.P. platform and told them that was where he stood, convention help notwithstanding.

On farm supports, Dewey has nailed down his approval of the 90% floor for next year, and of a flexible-percentage-of-parity support thereafter.

Dewey has no fear of crushing surpluses. Rather, as he sees the problem, it is still one of insuring enough grain production (1) to build up U. S. livestock herds and (2) to continue necessary exports to keep a hungry world from starvation.

DEWEY IS SAYING the things a victor says after an election. He is not talking as a challenger for high office, but rather as the man whose job it is to soothe the passions of a bitter campaign.

You can understand this by going back to Dewey's first speech at Des Moines and reading it again—the first sentence: "Tonight we enter upon a campaign to unite America."

You can understand, too, by rereading Warren's campaign opener at Salt Lake City: "... Good Americans are to be found in both parties; it is the condition of the parties at the moment which determines the favored party of the people."

All this high nonpartisan tone is deliberate. Immediate objective of the Dewey-Warren strategists is to emphasize their aloofness from the bitter invective of the Truman campaign, capitalize on that difference.

Longer-range, their objective goes deeper: It is to pile up as big a vote as possible as ammunition for the day when Republicans who don't really see eye-to-eye with Dewey may attempt to have their way.

As governor of New York, Dewey operates on a teamwork basis, the rule of unanimity. As President, he will of course seek to do the same thing in Washington.

And the Dewey team knows that there are Republicans who can be as difficult as Truman has found some Democrats. So the more overwhelming the mandate Dewey gets on Nov. 2, the more invulnerable his position with the next Congress will become.

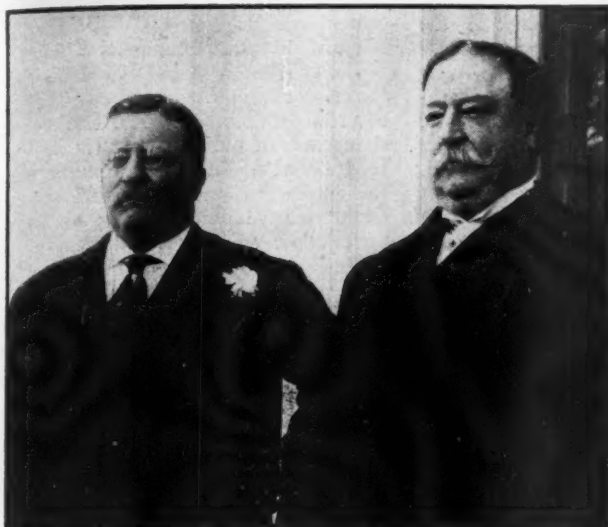
A REPUBLICAN SENATE is really what Dewey is campaigning for.

He is convinced that his own election is certain. Also, he has no fears about the house staying heavily Republican. But the Senate is nip and tuck (BW-Jul. 17'48, p15).

A glance at Dewey's itinerary on this 8000-mi. western swing is all you need. Only 10 of the 33 Senate seats at stake this year are real contest. Dewey is concentrating, on this trip, on 6 of those 10 states. He will go into the other four later.

Also, Dewey is concentrating on states with Democratic senators whom Republicans think they have a chance to lick.

Take Colorado: The state has only six electoral votes for President; they're Dewey's anyway. But Democratic Sen. Ed Johnson is in an uphill fight to keep his seat. Dewey made eight stops there.



BACK IN 1909, Teddy Roosevelt bequeathed a trust-busting campaign to the incoming president, William Howard Taft



TODAY, as another president faces the prospect of turning over his administration to a successor . . .

Truman Plants an Antitrust Time Bomb

Justice Dept. races January deadline to pile up cases for a new administration to carry on. Meat suit aims at a precedent.

President Truman's trust busters are going to leave businessmen something to remember them by. For the next four months—though what look like the dying days of the Democratic administration—the Dept. of Justice will pour everything it has into a final, grand-scale antitrust drive.

Between now and year's end, a shower of new cases will hit the courts. Main targets will be the cost-of-living industries. But there is no telling who else will be included.

• **Big Gun**—Last week, the Dept. of Justice fired one of the biggest antitrust guns in its history: Its attorneys filed civil suit against the Big Four in the meat-packing industry—Armour, Swift, Cudahy, and Wilson. This is a precedent-setting move, for it is aimed at a whole new field. It demands the breakup of the Big Four into 14 independent, competing companies.

Justice Dept. lawyers are almost ready to spring new cases in milk, building materials, and rayon. And current investigations of several other industries seem likely to produce formal charges before next January rolls around.

• **Democrats' Position**—The Democrats have at least three good reasons for pushing antitrust operations to the limit during the next four months:

(1) It is their last chance to take a

swing at big business before a new administration takes over the government. The Justice Dept. can read the political signs as well as anyone else. It is now hustling up investigations that it might otherwise have let drag along for months. It wants to button up everything it can before the Republicans come in.

(2) Dramatic new cases—especially cost-of-living cases—provide first-class ammunition for the current political battle. Meat makes wonderful campaign material, no matter what finally happens to the case in the courts.

(3) The outgoing Democrats can tie the hands of the incoming Republicans, to some extent, by bequeathing them a long list of active antitrust cases. It's hard to stop a trust-busting campaign once it's been started.

• **Precedent**—Oldtimers in Washington remember that Theodore Roosevelt passed on an active antitrust program to his successor, William Howard Taft. As a result, the easy-going, conservative Taft went down in history as a trust-busting president.

Democratic strategists think they see a chance to do much the same thing to Dewey. The new Republican attorney general will have to do something with the antitrust cases he inherits. If he lets them die, the Republicans may have some embarrassing explanations to make

in the 1950 and 1952 elections. If he pushes them, he will be following a policy that was dictated by the Democrats—and the Democrats won't pass up any chance to claim credit.

• **Time Bomb**—In this sense, the retreating Democrats are assembling a time bomb which they will leave behind to explode long after they have left.

The Justice Dept.'s new campaign, however, is more than a last-ditch political stratagem. The foundations for it were laid over a year ago, when the Antitrust Division started a series of investigations into industries whose products are closely connected with the cost of living. Before the end of 1947, it was obvious that 1948 was going to be a big year for the trust busters (BW—Jan. 3 '48, p21).

• **16 Cases**—So far, the cost-of-living antitrust program has produced 16 main cases, including the meat suit. Seven are in housing and building materials; seven in food; two in clothing.

Most of these cases will come to trial late this fall or sometime next year. There has already been a ruling of one sort or another against the Justice Dept. in four of them. In one, the government got a decision in the lower court, but the defendants (two St. Louis dairies) have appealed. In one other (cast-iron pressure pipe), the government got a consent decree. Altogether, the Antitrust Division has 116 cases pending. This is about par for the past few years.

• **The Meat Case**—The meat case is not only the most spectacular item in the

cost-of-living antitrust campaign. It is also the most ambitious. If the government should win all its points, it would open up a whole new field for antitrust operations.

Briefly, the Justice Dept. charges that since 1893 the big meat packers have dominated the industry and restrained competition by:

(1) Refraining from competing with one another in buying livestock;

(2) Refraining from competing with one another in the sale of meat and meat products;

(3) Restraining competition from independents;

(4) Excluding independents from the meat-packing industry.

• **Livestock**—In buying livestock, the complaint says: The Big Four agree on the total number of cattle and hogs to be bought; each takes about the same proportions with respect to the other three from year to year; and on any given day, each takes about the same percentage "regardless of the number of animals offered for sale and regardless of their respective plant capacities."

In selling meat, the Justice Dept. charges, the Big Four sell at substantially the same prices and on the same terms. It contends: They regulate the supplies of meat that each will have for sale during the year by regulating their purchases of livestock; they use identical formulas in calculating their costs and determining their selling prices.

• **But a Single Thought**—According to the Justice Dept., the packers arranged all this by means of direct conferences and agreements from 1893 until 1920. Since 1920, their thinking has been so uniform, say the antitrust lawyers, that they now get the same results without conferences.

This is the key point in the case. If the Supreme Court backs up the government in this line of reasoning, it will be saying that the dominant companies in an industry can be guilty of antitrust violations if they do no more than think and act alike. A clear-cut ruling to that effect would put an unlimited number of brand-new targets in the sights of future trust busters.

• **The Chances**—Dept. of Justice lawyers think that there is a good chance of getting just such a ruling. They point out that the Supreme Court went a long way down the road toward this position in the Cement Institute and other delivered-pricing cases. And the Supreme Court isn't going to change when the administration changes.

Proving the charges in the meat case—no matter how sympathetic the court—will be something else again. Packers deny that there has been any concerted action. And the Justice Dept. has no evidence of face-to-face collusion.

• **What Future?**—Nobody knows just what will become of the meat case and

the rest of the antitrust active list when a new administration takes over. Many businessmen assume that they won't hear much about antitrust after next January. But many lawyers, in the government and out, say that these businessmen are going to be badly disappointed.

Aside from everything else, antitrust never has been a party affair. It makes a good plank for anybody's platform. Republicans were the first trust busters (in the early 1900's). And it was a Republican Congress that gave the antitrust division the ample appropriation that it is using to finance its present campaign.

Prices: Confused

Industry waits clarification on basing-point decision from Capehart committee. Plastics go to delivered prices.

All was confusion on the delivered-pricing front this week. Only two things were sure: Everyone concerned will be happy when Senator Capehart's investigating committee starts its hearings; everybody will be even happier when, and if, the committee finally comes up with legislation to clear up the uncertainties that now prevail.

• **Possible Laws**—Just what kind of law may turn up, no one is willing to say for sure. One early favorite, which seems to have support within the Capehart staff, is a law specifically legalizing freight absorption to meet the lower price of a competitor whose plant is nearer the customer.

Another thing that may be done by new legislation is to define "price." The Clayton act, as amended by the Robinson-Patman act, prohibits price discrimination if it injures competition. But it leaves the important point of what constitutes price discrimination up in the air.

• **Mill Net vs. Delivered**—In several cases, the Federal Trade Commission has defined price to mean "mill net"—the net return to the producer after deducting any actual transportation cost that he has paid out. Under this definition, says William Simon, counsel to the Capehart committee, "discrimination occurs whenever a product is sold at the same delivered price to two customers located at unequal distances from the seller."

Many businessmen have already suggested to the committee that a specific definition of "price" be written into law. Some want price to be defined as meaning the delivered price the buyer actually pays at his plant. Others suggest that both a delivered price and

mill-net price should be recognized.

• **Cement Case**—The main source of confusion over the whole matter today is interpretation of the Supreme Court's cement-case decision (BW—Jun. 12 '48, p74). Many manufacturers have jumped to the conclusion that the decision had the effect of requiring everybody to shift to a straight f.o.b.-mill basis. The recent changeover of the steel industry (BW—Jul. 10 '48, p19) did a lot to strengthen this interpretation. As a result, manufacturers have been shifting to f.o.b. prices all over the industrial map.

Experts in the field think that, in most cases, such changes are totally unnecessary. And most of them agree that the result of a continuation of such wholesale shifts will be serious dislocation of our economy.

For instance, Alfred C. Neal, vice-president and research director of the Federal Reserve Bank of Boston, last week warned the meeting of the New England Council against the misinformation that's going around on this subject. "I believe," said Neal, "that universal f.o.b.-mill pricing is not required . . . by the recent decisions or any that are in prospect."

• **No Authority**—Another speaker at the same meeting was Corwin D. Edwards, director of FTC's Bureau of Industrial Economics. "The commission," he said, emphasizing that he spoke unofficially, "has no authority to require businessmen to sell f.o.b. mill, or to impose upon them any other specific pricing practice."

This week, Secretary of Commerce Charles Sawyer publicly warned industry against precipitate changeovers to f.o.b.-mill pricing. Such shifts, he said, if carried out on a broad scale, would have sharp repercussions on prices, employment, and business activity.

• **Exception**—Among the flood of reports of companies shifting from delivered prices to f.o.b. mill, a small countertrend stuck out like a sore thumb this week. Two big manufacturers of plastics announced that all their products would be sold on a delivered-price basis, starting Oct. 1. The companies: Bakelite Corp., a subsidiary of Union Carbide & Carbon Corp.; and Dow-Corning Corp., jointly owned subsidiary of Dow Chemical Co. and Corning Glass Works.

Bakelite's announced reason: to standardize a price structure which, up to now, has used a confusion of different pricing methods. This was a result of the rapid growth of the plastics industry, and the number of different fields into which it moved. As they entered a new field, the plastics makers found it expedient to adopt the price structure of their competition in that field. So, competing in many industries, they soon found themselves with many pricing systems.



GINGHAM DRESS FABRIC signalizes U. S. Rubber's entry into new textile field



GARDEN HOSE of Goodrich Koroseal is made at company's new plastics plant



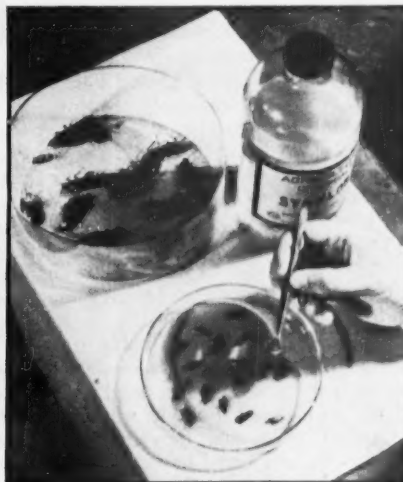
SIRUP CONTAINERS of stainless steel come off Firestone's production line



CONVEYOR BELTING, a Goodyear product, is taped to make it ready for shipment



RADIANT HEAT PANELS on ceiling of dairy use rubber to conduct electricity



BUG KILLER, one of U. S. Rubber's new ones, gives roaches a tough workout

Rubber Industry Stretches into Non-Rubber Fields

The Big Four tire makers are hot at each other's heels in competition for profitable "sidelines," from textiles to chemicals.

It used to be that if you bought a product with the name of a rubber manufacturer stamped on it, you could bounce that product—or stretch it. It was rubber. Today you are likely to find a rubber maker's name on a lot of things besides tires, galoshes, hot water bottles. It's turning up on dish towels, mattresses, and steel containers—to name a few.

• **Textiles Venture**—When U. S. Rubber Co. crashed the apparel-cloth field last week (BW—Sep. 18 '48, p. 28), its take-off was just the latest step in the industry's high-power trend to diversification. The company bought the Seaboard Mills in Burlington, N. C., 18 months ago. Its aim: to bolster its output of tire

cord, belt duck, and other textiles for rubber manufacturing.

Now U. S. Rubber has enough of these products to meet demand. So it has shifted its Burlington mills to making cotton and rayon fabrics for men's and women's clothing. It is introducing color-fast gingham of combed cotton yarn, rayon suitings in stripes and boxed patterns. By going in for clothing textiles, it hopes to stabilize its spinning operations in its other textile plants.

• **Slow Start**—The rubber industry set out along the branching roads of diversification before the war. It moved slowly and somewhat timidly at first. What it wanted was a product or products that, unlike tires, didn't tie so

directly to sales of other products. How many tires you can sell depends on the number of cars and trucks made, the number on the highway. To broaden the base of their income and to cut out fluctuations of earnings, the tire makers jumped into other fields.

It's a safe bet that, when the rubber industry started to branch out, it didn't realize how far afield it would run. There's nothing slow or timid about its diversification program now. Rubber manufacturers are moving headlong down a multiplicity of production lanes. And among the Big Four, the rivalry is just as hot in the new lines as it is in the old standbys.

Since the war, the major companies have poured tens of millions of dollars into plastics, chemicals, foamed rubber, shoes, steel products, paints—along with tires and other rubber products. U. S.

Rubber has spent \$80-million since the war for expansion and modernization. Of that amount, \$50-million has gone into nontire products—for new buildings, machinery, and research equipment.

Always strongly research-conscious, the industry has given its scientists literally free reign. Result: a steady flow of new materials and products. And the trend shows no signs of tapering off.

• **More Plastics**—One of the major sidelines of the tire makers is still the plastics business (BW—Mar.23'46,p56). The Big Four think the sky's the limit in this field. A new \$4-million plant at Marietta, Ohio, is stepping up Goodrich's plastics output. Firestone Tire & Rubber Co.'s Velon and B. F. Goodrich Co.'s Koroseal have been showing up in draperies, table cloths, and shower curtains. Koroseal garden hose is another wrinkle; it's coming off the lines of the new Marietta plant.

Goodyear Tire & Rubber Co. is bringing out a new family of vinyl chloride copolymers, which it has named Pilovic. Another new Goodyear group of rubber-plastic items will have its unveiling next week in New York at the Society of the Plastics Industry show. This family, a mixture of natural and synthetic rubber with plastics, is Tuf-lite.

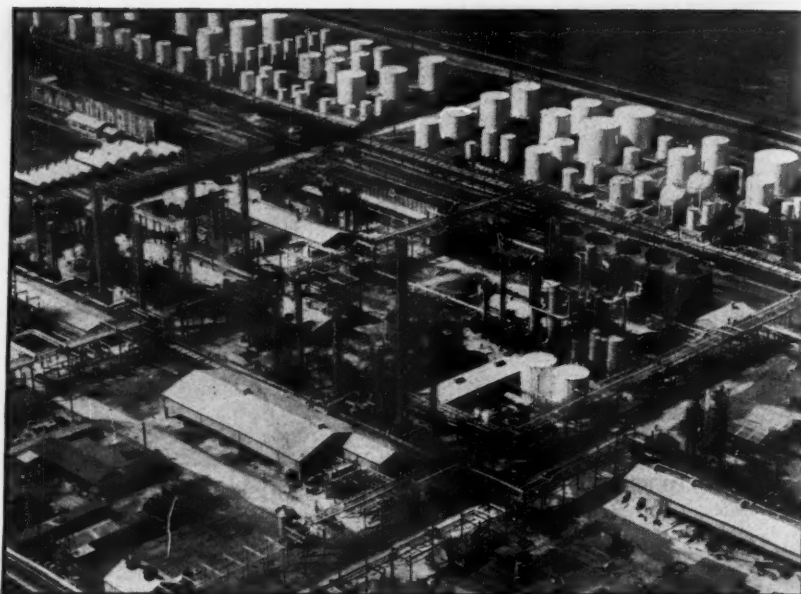
• **Versatile**—The idea of using small quantities of rubber to plasticize resins isn't new. But Goodyear believes that Tuf-lite will bring new utility to the company's Pliolite resins. Pliolite is already well established in wire insulation, flooring, paper coating, and paint fields. Tuf-lite will demonstrate its versatility in football, polo, and industrial-safety helmets; in golf-club heads, bowling pins; water and mildew-resistant containers; electrotape printing plates; and other molded articles that require high impact and water resistance.

U. S. Rubber recently brought out a material comparable to Tuf-lite, named Kralite. It's made of thermoplastic resins combined with synthetic rubber. It has the strength of wood, but it won't split under a lumberjack's ax. The company thinks it has only scratched the surface in this product's possibilities.

• **Foamed Latex**—Another line where the rivalry is hot is foamed latex rubber, the cushioning and upholstery material. U. S. Rubber, Goodyear, and Firestone are all in on this, along with several of the smaller rubber companies. Unlike its two big rivals, U. S. Rubber makes its mattresses from start to finish, at Mishawaka, Ind. It hopes to have them in 500 stores by December.

Goodyear recently put a \$10-million plant into operation in Akron, half of it making foamed rubber for the mattress, automotive, and furniture industries.

Firestone has launched a \$1-million expansion at its Fall River (Mass.)



New Product From Oil: Glycerine

Glycerine-using industries now have a new source of supply in petroleum. Last week, Shell Chemical Corp. started commercial production of glycerine from petroleum at its brand-new Houston (Tex.) plant (BW—Dec.21'46,p21). Shell Development Co., research and development affiliate, worked out the synthesis used in the \$8-million plant.

Glycerine from petroleum will help ease the squeeze on conventional sources of supply, the soap and fatty acid industries. In recognition of this work, Shell Development Co. is slated to get this year's award for Chemical Engineering Achievement, which is sponsored by Chemical Engineering, a McGraw-Hill publication.

plant to keep up with growing demand for the foamy material.

• **Belting**—Another boomer is the industrial conveyor belt. This isn't a new venture for the rubber industry. But since the war it has climbed to new importance.

Goodrich thinks so well of its belting operation that it started work a few weeks ago on a multimillion dollar factory in Akron to increase its conveyor-belt output.

• **Chemicals**—Tire makers have always been more or less involved in the chemical industry. The advent of synthetic rubber during the war shoved them into the chemical business up to their necks. Chemicals are fast becoming one of their chief sidelines.

Goodrich has set up a separate division to handle the 200-odd chemicals that have already made Goodrich a potent name in the chemical world. (The subsidiary also runs Goodrich's synthetic plant, which went into operation this year. The plant has doubled Goodrich's output of Geon, a plastic raw material.)

The Goodrich chemical line now includes accelerators, plasticizers, and other mixing agents for the rubber and plastics industry. It also includes insecticides and fungicides. One of its newest as an agricultural spray that

forms a rubber-like protective film over fruit.

• **Insecticides**—U. S. Rubber is going strong in the insecticide line. A few weeks ago it came up with two non-poisonous chemicals that guard against plant diseases and seed rot. Their names: Spergo and Phygon.

Another insecticide, developed by U. S. Rubber's agricultural laboratory, is Syndeet-30. The company says this is better than DDT for getting beetles, aphids, and bugs off shade trees.

With an eye on its big competitors, Firestone has just opened a new chemical pilot plant.

• **Others in the Line**—A complete listing of tire-makers' products would read like a Who's Who of new products. Some of the most interesting are:

Radiant heating panels. Goodyear and U. S. Rubber almost ran a dead heat in bringing out this new type of heating element. What they did was to compound a new rubber that conducts electrical current. Normally rubber acts as an insulator against electricity. Turn on the light switch and you have a panel that radiates heat.

Both U. S. Rubber's Uskon and Goodyear's Pliotherm have been installed in scores of homes, farm buildings, garages, and recreation rooms.

Stainless steel. Firestone is still the

lone rubber company in this field. It's already a major producer of steel beer barrels. Recently it has added milk containers. Latest development is a stainless steel sirup-dispensing tank for the soft-drink industry. Firestone says the velvet-smooth interiors make the containers bacteria-proof, and that they aren't affected by fruit acids.

Paints. Goodyear is going to show the quick-drying, chemical-resistant properties of its Pliolite S-5 paints at the annual paint industry show in Chicago next month. Goodyear doesn't make the paint. It supplies the Pliolite resins that go into many commonly used paints and lacquer solvents.

Packaging. Here Goodyear is banking heavily on Pliofilm, its transparent oil and moisture-proof film. Pliofilm in one of its newest adaptations is turning up on grocers' shelves as margarine "squeeze bags." Half of the company's new Akron plant is devoted to this product.

• **Results?**—Does all this activity pay off? Clearly the Big Four think so, or they wouldn't be plumping for it so heavily. They are close-mouthed about how much of their income comes from sources other than tires.

Take the case of Goodrich. For several years, that company has had the best earning record per dollar of sales in the tire industry. Trade observers guess that Goodrich's showing (its profit in 1947 was 7.3¢ per \$1) of sales was mainly the result of the "extracurricular" activity, particularly in chemicals. They figure it accounted for 45% to 55% of Goodrich's income.

BREAK FOR TAXPAYERS

You can be your own tax expert now. A new, 16-page instruction manual was put out last week by the Bureau of Internal Revenue; it's called "How to Prepare Your U. S. Income Tax Return." It tells the taxpayer in simple language just what exemptions, credits, deductions, and options he can claim.

The pamphlet replaces the cryptic and confusing four-page leaflet that you got with your personal tax blank the past three years. It provides a complete checklist of tax regulations and—step by step—takes you safely through the maze of tax computation.

The most significant change from the old form is not spelled out. But anyone who has dealt with BIR before won't fail to catch it. Behind the earlier instruction sheets you could always spot a hard-eyed revenue out to squeeze the citizen for the very last dime.

The new pamphlet, on the other hand, tries to save you money. One example: It compares the features of separate and joint returns, and tells how to make the most of the split-income benefits provided by the new tax law.

The Rents That U. S. Families Pay

Percent of rent-paying nonfarm families in each rent bracket— Families with incomes of . . .				
Monthly rent	All families	Under \$2,000	\$2,000-\$4,999	\$5,000 and over
Under \$20	21%	44%	15%	4%
\$20-\$29	22	30	22	14
\$30-\$39	22	12	28	21
\$40-\$49	16	8	18	17
\$50-\$74	12	2	12	26
\$75-\$99	3	0	2	9
\$100 and over	2	0	1	7
Not ascertained	2	4	2	2
Total	100%	100%	100%	100%

Rent Only 12% of Income

Low average figure, released by Federal Reserve Board, is due primarily to fact that rents haven't risen as fast as other prices. But housing shortage has sent home ownership to new high.

For most families, rent is the first thing that has to come out of the pay envelope. One reason that consumers still have money to spend these days is that rents have not risen as fast as prices.

• **12% for Rent**—Figures released this week by the Federal Reserve Board show that families who do not own their homes pay about 12% of their incomes before taxes to the landlord.

This knocks out the old idea that the average family spends about one-quarter of its income on rent. But it checks closely with a Bureau of Labor Statistics study showing that in 1941 rent was about 16% of income before taxes for nonfarm families.

• **Part of Survey**—The Reserve Board's figures are part of its ambitious Survey of Consumer Finances. Previous installments in this series (BW—Aug. 21 '48, p23) have covered consumer buying intentions, incomes, and asset holdings.

According to the survey, 18.5-million nonfarm families—49% of the total—own their own homes. About 17-million, or 45%, rent. The remaining 2-million are mostly domestic servants and agricultural laborers.

• **Greatest Ownership**—This is the highest percentage of home ownership on record. Back in 1900, only 37% of U. S. families owned their homes. By 1930 ownership was up to 46%. Then the depression reduced it to 41%.

In a sense, part of today's high ownership is involuntary. The shortage of rental housing has forced families to buy when they would prefer to rent.

• **Median Rent: \$30**—The median monthly rent for all nonfarm families in 1947 was \$30. That is, half the families paid more than this, half paid less. In general, of course, the higher the income, the higher the rent. But rents also showed a relation to the size of the family and the size of the community.

Both single persons and large families paid lower rents than families of two or three members.

On the average, U. S. renters put about 12% of their income into rent in 1947. But the variation from one income group to another was wide.

• **Variations**—Families with an annual income of \$5,000 or more spent an average of only 9% on rent. At the other end of the scale, families with less than \$2,000 averaged 21% to the landlord.

Even in the top brackets (\$5,000 and over), only 7% of the families paid over \$100 a month rent (table). Median rent for this group was under \$50. In metropolitan areas, however, 4% of all families, regardless of income, paid over \$100, and 22% paid \$50 to \$99.

Rents were rising in 1947, but controls kept most of them in check. Only one-fourth of the families reported that their monthly payments had increased. About 60% reported no change.

• **Owners' Expenses**—The Reserve Board's survey also pulled together some information on what home owners spent for maintenance and improvements. This shows that almost half of the home-owning families paid out something for repairs or betterments during 1947. The median was about \$280.

Higher income groups did most of the spending for repairs and improvements. Families with incomes of \$5,000 or more accounted for about half the total spent. Families with incomes less than \$2,000 accounted for only 9%—even though this group spent a larger percentage of its income in this manner.

• **Mortgage Payments**—Some 38% of all home-owning families reported that they made a payment against the principal of a mortgage during 1947. The median payment was about \$500. But there still are a good many of the old single-payment mortgages outstanding.

Control of G. M. Shifts to Detroit



L. C. GOAD, new vice-president, is head of Body and Assembly Divisions Group



W. F. HUFSTADER is another new vice-president; he runs the Distribution Staff



I. L. WILES is now general manager of Buick—and likewise a new vice-president



J. J. CRONIN becomes fourth new vice-president as general manager of Fisher



FAMOUS 14TH FLOOR of the huge General Motors Building in Detroit is company's nerve-center. Here's where the new executives will work

Sweeping staff changes at General Motors give operations men firm control of world's largest industrial enterprise.

At Murray Bay, Que., the top executives of General Motors Corp. sat down this week to an important companywide conference. They had a lot to talk over—and not merely because it was the first such G.M. pow-wow in a decade. What really made it a red-letter occasion was that it followed close on the heels of the biggest reshuffling of top brass in G.M.'s recent history.

G.M.'s high-level changes last week caused wide speculation. But the significant thing about them is this: They mean that the center of gravity in the corporation has now moved almost completely from New York to Detroit. In short, the operations men now are fully in control.

• **Sloan's 1946 Move**—This swing began late in 1946. And it stemmed from the approaching retirement age of board chairman Alfred P. Sloan, Jr.

At that time Sloan carefully considered resignation. The corporate by-laws charged him with major policy-making and administration in virtually every sphere of company activity. He felt he was no longer young enough to handle all his vast tasks. So the directorate changed the by-laws. It piled the chief administrative responsibilities on G.M. president C. E. Wilson.

• **Dates Further Back**—But even before this happened, insiders knew that an east-west trend had set in.

For years two viewpoints vied with each other on the board and in top administrative thinking in G.M. On one side were the administrative, financial, and policy leaders in New York; on the other, the actual plant and business operators.

• **East-West Split**—That they did not see eye to eye was not serious—the continued success of the company proves that. The difference lay more in approach than conclusion; the cleavage rarely, if ever, had any real consequence. Evidently, though, the eastern majority on the board figured that the company's best interests would be served by deferring to the thinking of the western operators.

In any case, 13 operating people sat on a G.M. board of 28 by 1945. Today, 16 of the 29-man board are operating people. And president Wilson, rather than board chairman Sloan, actively runs General Motors.

• **New Vice-President**—Wilson had been contemplating last week's organizational

changes for some time. He had two problems: (1) to relieve himself of some of the load he was carrying; (2) to relieve some of the load on his three executive vice-presidents.

The initial step, therefore, was to establish a fourth executive vice-presidency. Buick manager Harlow H. Curtice (cover) was picked on the basis of the brilliant record he rolled up at Flint in the past 15 years. At the same time, the duties of the four executive vice-presidents were defined more carefully. Here is how they shape up:

Curtice: All non-manufacturing divisional activity, including sales and engineering; staff problems such as personnel, employee, and public relations; procurement; scheduling.

M. E. Coyle: Other operations—mainly manufacturing—of car, truck, body, assembly, and accessory plants.

Ormond E. Hunt: Operations of the engine group (locomotives, aircraft, diesels, etc.), the household appliance plants, and overseas and Canadian plants. (Hunt, who has been with G.M. since 1921, will retire next year, at 66.)

Albert E. Bradley: All fiscal, financial, and legal affairs.

• **Goad Ranks High**—Along with the foregoing came other shifts in personnel, both at corporation and division levels.

L. C. Goad, general manager of the Fisher Body Division, moves up to take charge of the corporation's Body and Assembly Divisions Group. Detroit dopesters rank quiet, intent Goad high in the top executive succession. He's youngish (only 47), has been with G. M. since he joined Delco-Remy at 22. He succeeds vice-president T. P. Archer, who is on disability leave now but will return later to a top policy job.

The vacancy at Fisher created by Goad's promotion will be filled by John J. Cronin. He has been general manufacturing manager of the division.

• **Changes at Buick**—Besides Curtice, Buick also loses William F. Hufstader, whose efforts helped drive Buick's sales into fourth place in the industry (BW—Sep. 18'48, p56). Hufstader moves over to take charge of the corporation's distribution staff. In this job he will report directly to his old boss, Curtice. He succeeds vice-president Wendell G. Lewellen, who is resigning—reportedly in favor of a car dealership. At Buick, the division's present comptroller, Ivan L. Wiles moves up to replace Curtice as general manager. He has already announced several appointments; major one is that of Otis L. Waller, assistant general sales manager of Buick since 1934, to succeed Hufstader.

• **New Staffs**—The shift of W. G. Armstrong from manufacturing chief of G. M. to operating head of Chevrolet (BW—Sep. 18'48, p52) created other problems. Activities hitherto under

Armstrong now go to Curtice. These staffs were created:

Facilities and processing: Headed by Rodger J. Emmert, moved up from the factory managership at GMC Truck & Coach.

Procurement and schedules: Headed by Roger M. Kyes, one-time president of Harry Ferguson, Inc., and lately on Wilson's personal staff. The understanding is that Wilson will continue to give much personal attention to procurement problems.

Real estate: Headed by Fred G. Tykle, who has been in that post.

Business research: A new staff activity, headed by Stephen M. DuBrul, now head of the social and economic relations section of public relations. Activity of the social and economic relations section will be transferred to business research.

• **New Division**—As part of the reorganization, Ternstedt has been separated from Fisher Body Division. Ternstedt, which produces hardware for bodies and other G.M. products, now becomes the corporation's Ternstedt Division. J. W. Jackson continues in charge; he reports to Goad.

On top of all this reshuffling has come news of another appointment: C. E. Wilson has taken on Wilbur H. Norton, who resigned from the presidency of Montgomery Ward & Co. during the recent abortive revolt against Sewell Avery (BW—Jun. 19'48, p98). Norton will work on "special assignments" and report directly to Wilson.

• **Huge Enterprise**—The men who gathered at Murray Bay last Tuesday and remained until this weekend for discussions included not only the top corporation people, but executives in the major activity ranges of each division. Collectively, that group at Murray Bay controls the largest industrial enterprise in the world.

General Motors builds more than 40% of all cars and trucks produced on the continent. But that is only part of the G. M. story. In their fields, Frigidaire, Electro-Motive, Allison, and other names are topdrawer. The General Motors influence is strong in such diverse industries as locomotives and aircraft, appliances and diesel engines, railroad journals and heating equipment. The company operates the world's largest privately-owned automotive proving ground, an insurance company, a finance company—and makes bicycle coaster brakes as well.

• **Sloan's Touch**—This vast empire grew under Sloan's organizing genius. In the period of initial activity, from 1908 until the end of the first World War, G.M. was a major company, to be sure, but hardly a colossus—a market plaything of William C. Durant almost as much as an industrial enterprise.

Its growth became really spectacular



C. E. WILSON made H. H. Curtice his fourth executive vice-president. Others are . . .



M. E. COYLE (automotive production) . . .



O. E. HUNT (nonauto production) . . .



A. E. BRADLEY (fiscal and legal affairs)

after 1918. In 1920 Pierre S. du Pont became G.M.'s president. He installed Sloan to succeed him in 1923. In that year, G.M. had 91,265 employees on its average payroll; its sales were approximately \$700-million. By 1929, the figures were 233,286 and \$1.5-billion. Last year they were 375,689 and \$3.8-billion.

• **Potent Force**—Obviously, General Motors is a potent force in the national economy. It distributed \$1.12-billion in wages last year. Its plants were valued at \$1.5-billion. From its \$3.8-billion in sales, it netted \$287-million and paid \$145-million in dividends.

This money came in part from investments and real estate holdings, but mostly from production at more than 100 manufacturing establishments across the country. It has four big establishments in Canada, four in England, five in Australia, two in France, and one in each of 12 others stretching from South Africa to Switzerland.

Colorado River: A Political Issue

Colorado River water has become a national political issue. The Truman Administration tossed the water fight into the arena last week: Interior Secretary Krug sent Congress a report recommending construction of the Reclamation Bureau's Central Arizona project.

• **Embattled States**—The \$738,408,000 project would take an estimated 1.2-million acre-feet of water a year out of the Colorado, spread it over parched farms in Arizona. It calls for a dam and power plant at Bridge Canyon above Lake Mead.

California will fight the proposal to the last ditch; it says Arizona isn't entitled to any more Colorado water (BW—Jul. 10 '48, p. 32).

• **Politically Delicate**—Getting the report to Congress before November may embarrass California's Gov. Warren in his campaigning as G.O.P. candidate for vice-president. To Arizona voters, Warren is already suspect because of his state's attitude toward Colorado development.

This week, G.O.P. presidential candidate Dewey at Denver praised the Colorado River Compact. "It is definite, clear, and irrevocable," he said, "and must be respected and vigorously upheld."

• **Who's Right**—Krug pointed up—non-committally—the crux of the latest dispute: "If the contentions of the State of Arizona are correct, there is an ample water supply for this project," he said. "If the contentions of California are correct, there will be no dependable water supply available from the Colorado."

Fewer Livestock, So . . .

	(in millions)		
	1939	Peak Year	1948
Beef Cattle	66.0	85.6	78.6
Dairy Cattle	24.6	27.8	25.2
Hogs	50.0	83.7	55.0
Sheep	45.5	49.3	30.5
Chickens	418.6	583.2	463.0
Turkeys	6.5	8.5	4.5
Horses	10.6	—	6.6
Mules	4.2	—	2.5

Critters Eat Well

You won't get much meat in next three months, but livestock will feed better than ever on record crops yields.

This is the season of the well-fed livestock and the hungry people. Meat-hungry, that is.

• **Four Pounds Less**—On the average, each American will eat four pounds less meat in the next three months than he did in the same period a year ago. Livestock and poultry, on the other hand, can feed as never before.

That is the picture as the Corn Belt begins now to harvest the biggest crop in history.

Add to the record corn crop a huge harvest of oats, good yields of other feed grains, and ample hay. That will give you the supply of animal and poultry feed. Then compare it with the livestock population. Result: more than a ton of feed per animal unit—biggest supply in the country's history.

• **The Figures**—Here is the way the feed figures line up (in tons per animal unit):

1937-41 average	0.89
1944	0.91
1945	0.93
1946	0.99
1947	0.88
1948 (estimated)	1.02

• **Appetite**—The number of animal units, in this connection, is not just the total number of animals. It is that total translated into terms of appetite—how much a cow or a hog or a sheep will eat. When you take the number of animals, their appetites, and the feed supply, you know how far the feed will go.

The number of animals now is down sharply from the wartime peaks. But it is high (except for sheep) compared with prewar.

• **All the Bigger**—Big feed crops, therefore, bulk all the bigger. That's why the price of corn is dropping to the federal support price as soon as the first golden trickle of the new crop comes to market. And it has other meanings, too:

(1) With livestock prices still in the

stratosphere and the cost of feed down sharply, livestock raisers and feeders will make excellent profits. They will be the lushest segment of the rich farm market.

(2) If you go by the textbook, farmers will increase livestock numbers just as fast as the nature cycle will let them. Beef cattle on hand now will be fed to better finish. And hogs will be held back to take on weight (which will add somewhat more to lard supplies than to pork chops this winter).

• **Lowest Numbers**—But the textbook may not be 100% right in this case. The Dept. of Agriculture reports the number of cattle on feed lots Aug. 1 at the lowest level in modern history. A feed-lot operator on that date had to pay the high price for scarce old-crop corn on the one hand; on the other, cattle shippers were demanding fancy prices for feeders.

To be sure, the feed-lot operator from now on will be able to buy new-crop corn at much lower prices. But he still has to pay through the nose for range cattle to eat the corn. This was true, even on Monday of this week, when the largest rush of cattle to market in nearly a year was composed of 40% to 50% of "stocker and feeder" animals.

• **Possible Losses**—And there's a chance of thumping losses—cheap feed notwithstanding—if the bottom falls out of the market for well-finished beef before he gets his feeders up to market weights. This week's price on prime slaughter beef, despite large receipts, held at the all-time high; but that is no guarantee for the future.

Livestock feeding always has an element of gambling in it; it is either a gold-watch or a wooden-leg business. But feed-lot men are more cautious this year than usual. In this they are being encouraged by economists of the University of Illinois' Extension Service. These College of Agriculture representatives have been touring the state, holding outlook meetings. They point to widespread prediction that the price of cattle at stockyards next autumn may be down as much as 25%.

• **Dairymen Better Off**—Dairymen, however, are in a more comfortable position when they consider increasing flocks. The price of milk is protected to some extent by regional marketing agreements. Similarly, hog and poultry numbers probably will be expanded pretty rapidly to take advantage of a favorable price-feed ratio; farmers can turn the poultry and hog production spigot on and off much faster than is the case with cattle.

In fact, the Dept. of Agriculture has just called on farmers to produce more pigs next spring than ever before in peacetime history. Goal is 60-million, up 9-million from this year. They would be pork late in 1949.

SINCLAIR RESEARCH

Improves the present — probes the future

In the new Research Laboratories at Harvey, Illinois, Sinclair chemists, physicists and chemical engineers have recently perfected a new gasoline, a new motor oil. They are developing lubricants needed for tomorrow's new type engines. They are improving present products.

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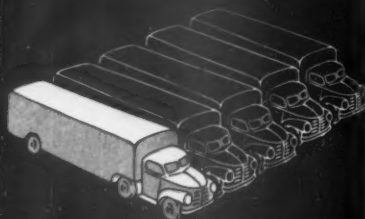


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BUSINESS BRIEFS

FORCED OUT OF MONTGOMERY WARD presidency in the battle between board chairman Sewell Avery and his top executives (BW—Jun.26'48,p24). Wilbur H. Norton has joined General Motors. He'll report direct to president C. E. Wilson "for special assignments."

INDUSTRIAL GAS FAMINE threatens now in Illinois and Indiana as the result of efforts to protect gas supplies in Michigan next winter. Panhandle Eastern Pipe Line Co. had to tell its other utility customers to cut consumption 50% when FPC ordered it to increase deliveries to Michigan Consolidated Gas Co. FPC's motive: to build up supplies in Michigan Consolidated's storage fields. Indiana officials protested that industrial users on interruptible contracts would have to shut down. Illinois officials told state utilities to defy FPC. But FPC stands firm.

RADIOACTIVE PRODUCTS, INC., of Detroit has joined the parade of new companies getting into atom business. It'll prepare and sell radioactive compounds, manufacture instruments. Homer S. Myers and John R. Niles, ex-M.I.T. Radiation Lab, have sold enough of a \$125,000 stock issue to start operations.

PHOTO CHALLENGER Kryptar Corp. of Rochester, N. Y., gave up the battle to break into the amateur film business (BW—Apr.24'48,p84), filed in bankruptcy. Troubles: two fires that limited production in Kryptar's original plant; financing difficulties in building a new one; inability to raise prices.

ROUNDING OUT PRICE INCREASE of last June (BW—Jun.19'48,p23), General Electric announced \$5-\$20 boosts on some of its refrigerators, ranges, water heaters, and washers.

TEXTILE MILL CLOSINGS at Nashua, N. H. by Tectron, Inc. (BW—Sep.18'48,p32) have precipitated congressional investigations by each of the New Hampshire senators. Sen. Tobey's Commerce sub-committee has started hearings, and Sen. Bridges has Small Business investigators at work—both to find out why Tectron is shifting operations from New England to the South and Puerto Rico. Key angle: Are government subsidies in Puerto Rico responsible for textile mill shutdowns.

BEECH AIRCRAFT CORP. has declared a (presumably annual) \$1 dividend—its first in three years. Making it possible: (1) management that is turning out \$2-million a month of aircraft with 2,300

men, as against 5,000 men a year ago; (2) a big volume of custom jobs for other manufacturers, air and nonair; (3) a lot of government aircraft overhaul.

RIVER FREIGHT TRAFFIC is booming. Directors of the American Waterways Operators reported in Chicago last week that member companies are carrying more tonnage than even during the war peak, that barge lines will increase their capacity 10%-15% this year. Reasons: higher freight rates on the rails (BW—Aug.2'48,p41); push for freight savings resulting from elimination of basing-point price systems.

A STOCK-GIFT PLAN tied in with U. S. Savings Bond sales to employees is being set up by General Electric. Except for top brass, any employee may buy up to \$10 a week of U. S. bonds. At the end of five years, G. E. will give him company stock equal at market value to 15% of the savings bonds he still holds. Net effect is a yield of about 5.4% to the employee on his savings.

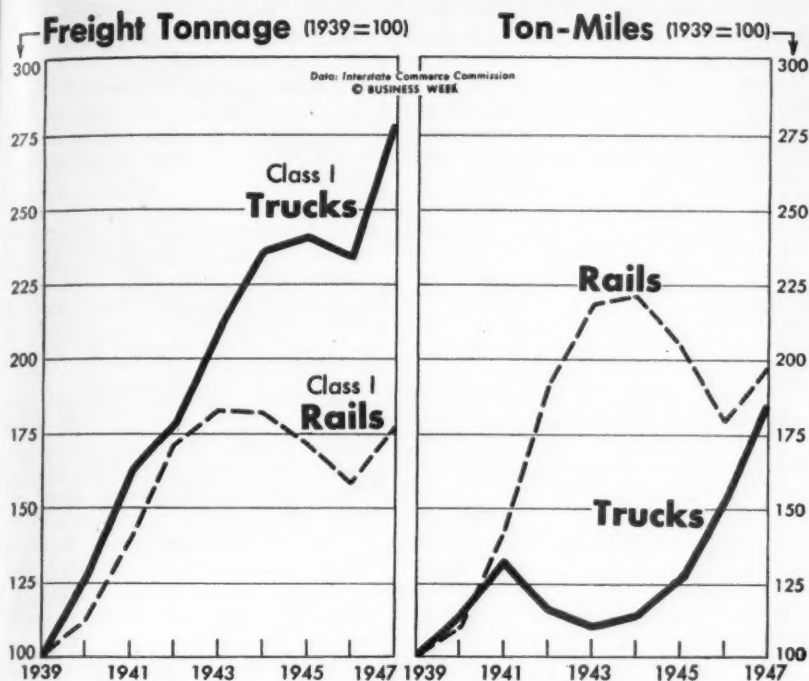
277 PARK AVENUE CORP. has gone to court to retain its hold on the swanky apartment built above the New York Central and New Haven tracks (BW—Sep.18'48,p98). It wants its original 63-year lease reinstated.

U. S. DISTILLERS are finding it tough to get adequate fire insurance protection for their precious reserves of aged whisky. So says Col. William Schiff of Schiff, Terhune & Co., insurance brokers. Reason: Insurance companies, whose ability to take on new business is limited anyway (BW—Jul.26'47,p64), hate such concentrated risks.

TWIN COACH CO. celebrated its re-entry into the trolley coach business with an order for 90 coaches (\$1.7-million) for San Francisco. Prewar builder of about a third of all trolley coaches, Twin has been out of the field since 1942.

PHILCO CORP. CHARGES, in a court suit this week, that A.T.&T. is trying to make it abandon the private radio relay connecting its Philadelphia video station, WPTZ, with the NBC network in New York. Philco says A.T.&T. refuses to carry programs on the Boston-Richmond coaxial cable if they move part of the way over the private link. A.T.&T. insists its rate rules don't require it to interconnect with parallel private facilities, points out that FCC is considering the problem now. The decision may affect future expansion of private radio-relay video links.

TRANSPORTATION



Trucks Versus Railroads

Trucks haul more freight than ever before. Question is: What will happen to them when the real fight for business begins? The Commerce Dept. thinks a lot depends on truckers' rate policies.

There's little question that the motor truck has changed the pace of the national economy. If trucks suddenly disappeared from the roads today, most wholesalers, lumbermen, building contractors, and many others would have to change their business radically.

• **On the Increase**—The country's dependence on trucks grows daily. Last week, for example, the American Trucking Associations said that the volume of motor carrier freight in June was up 5.3% over the previous month, up 16.6% over June a year ago.

The two charts above show the trend in domestic transportation. From the one at the left you can see how trucks have bettered their position vis-a-vis the railroads in terms of tonnage handled. In 1939, Class I railroads carried 1.6-billion tons of freight; at the height of the war, a little over 3-billion tons; last year, about 2.9-billion. Class I motor carriers made much greater proportional gains over the same period: 48-million tons in 1939, 114-million in 1943, 134-million last year.

• **Ton-Mileage Lags**—The chart at the right shows, however, that in terms of ton-mileage motor trucks haven't turned

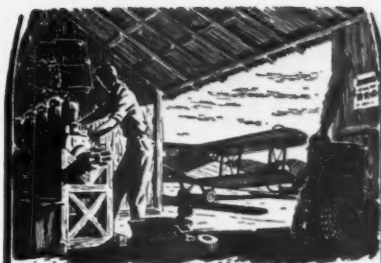
in the same record. Railroads carried 336.1-billion ton-miles in 1939, 747.1-billion in 1944, 666-billion in 1947. The motor carriers' inter-city score for the same years runs 43-billion, 49.3-billion, 79.2-billion. In the best prewar year, motor trucks carried about 8% of the ton-miles handled by all forms of transportation. Their share dropped to 4.5% in 1944. Now, as the chart shows, motor carriers are resuming their former position.

The reason for the wartime drop is, of course, obvious: Shortages of equipment, gasoline, and tires. Railroads took over most of the long-distance hauling. Now the average length of truck hauls has again started to near the prewar average.

• **The Future**—All of this leaves some big questions. What is the future of trucking in relation to railroads? Will trucks make deeper inroads into the rail business? Or will their share level off about where it is?

There has been no fair postwar test on which to base answers. All forms of transportation have more business than they can handle.

But there are some interesting clues



WHEN THE FIRST AIRCRAFT WERE BUILT IN THE WEST

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had been in use for 15 years

When aircraft were first built on the west coast, years before the first World War, "PACIFIC-WESTERN" was already long established as a principal supplier of gears and geared products to the industries of the west.

PACIFIC-WESTERN aircraft actuators, precision-quality aircraft gearing and many other types of ground and air equipment are now known throughout the industry. Continual research and testing programs are carried on within our plants to aid in solving difficult present-day aeronautical problems.

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"SUNROC SERVES THE WORLD... a cool drink of water"

to the future in an important report published last week by the Dept. of Commerce. It's called "Domestic Transportation: An Evaluation of Motor Truck Transportation." It's the first comprehensive study of trucking in the postwar era.

• **Lack of Data**—You won't find the answers completely spelled out; for as Commerce points out: "No really complete analysis of motor trucking is now possible because the information required for such a study has never been compiled." Data on private truckers, for instance, is very skimpy—yet private truckers handle a big share of the business.

The figures that Commerce has pinned down make an impressive display. Truck registrations are a good example: In 18 years they have almost doubled, from 3.5-million in 1930 to 6.5-million last year.

• **Evidence of Growth**—Here are some more evidences of growth:

The number of Class I intercity motor carriers registered with the Interstate Commerce Commission grew from 991 in 1940 to 1,516 in 1946. The total assets of these companies vaulted from \$152.5-million to \$350.2-million.

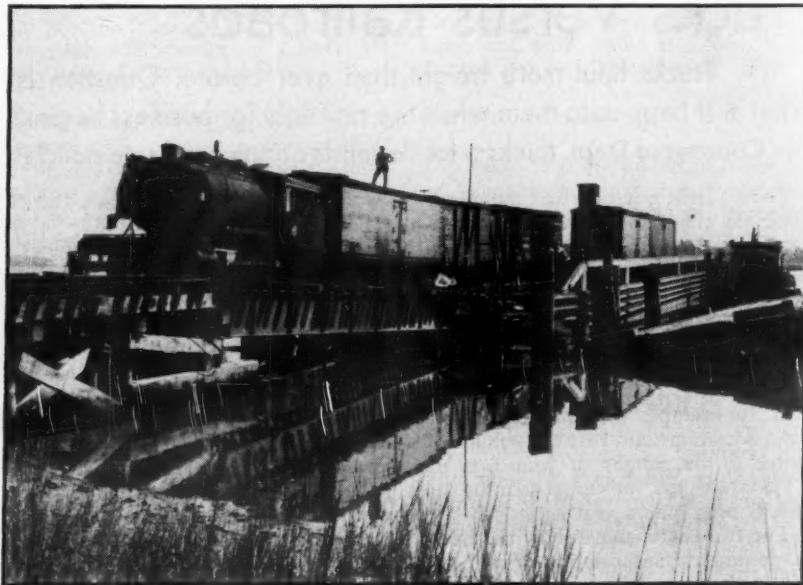
The total tonnage of freight carried in domestic commerce ran somewhere around 9-billion tons in 1941 (5-billion local, 4-billion inter-city). Of this, trucks—for-hire and private—hailed almost all the local traffic and some 11% of the inter-city traffic.

• **Key Role**—You can best assess the key position that trucks now hold in the U. S. economy by glancing at a few selected fields in which they have a vital role:

Livestock. Here trucks hold top position in transporting animals and animal products; they haul about two-thirds of the total tonnage. In fact, says Commerce, "trucks appear to have been a primary cause for the changing locational pattern of marketing and slaughter of livestock."

Agriculture. Trucks originate and terminate about one-third of all farm produce tonnage. Farmers themselves operate more than 1.5-million trucks; no less than 75 metropolitan areas receive all their milk by truck; motor carriers cart in anywhere from 20% to 80% of the fresh fruit and vegetables consumed in various urban markets.

Building. About 10% of the nation's trucks are engaged in some phase of the construction industry. Says Com-



New R. R. Runs 11½ Miles on Water, 1 on Land

A railroad has started running into Smithfield, Va., for the first time in the famous ham town's 196 years. Its track is only a mile long; the rest of its route is an 11½-mi. water haul—from Newport News, across the James River, and up Pagan Creek. The president and idea-man behind the new Smithfield Terminal R.R. is Erwin K. Phillips, a Newport News coal and building-supplies merchant. Phillips saw the savings a

railroad would bring the packers, who heretofore had to use trucks to connect with railroads 15 mi. away. Phillips bought a tug and chartered a 10-car float from the Chesapeake & Ohio Ry. They connect with the C. & O. at Newport News. At the Smithfield end of the line, the float-bridge landing (above) is served by the new road's pride and joy—its only locomotive, a coal-burning, saddle tank model.

"Spit tobacco juice, or die—"



DNOC (dinitro-orthocresol)

may banish grasshopper plague

To millions of kids a grasshopper may be just a quaint "bug" which "spits tobacco juice" or makes passable bait for fish hooks. But to others all over the world, grasshoppers are destroying pests which annually devour millions of dollars worth of food crops.

Grasshopper control is a vital issue to farmers everywhere!

Now, the *Pittsburgh* chemical DNOC (Dinitro-Orthocresol) promises to become the most effective insecticide for grasshopper control yet developed. It has excellent mixing qualities with inerts and the general stability desired for agricultural uses.

DNOC is one of a variety of agricultural chemicals, including insecticides, fungicides, germicides and rodenticides, produced by Pittsburgh Coke & Chemical Company for its affiliate Pittsburgh Agricultural Chemical Company, Empire State Building, 350 Fifth Ave., New York 1, N. Y. Address inquiries about *agricultural chemicals* to the above.

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Isopropyl N—Phenyl Carbamate
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Naphthalene
Para Amino Phenyl Mercuric Acetate
Phenol
Phthalic Anhydride
Picoline—Alpha, Beta and Gamma
Pipe Line Enamel
Pyridine—Medicinal and Industrial
Sodium Cyanide
Sodium Thiocyanate
Sulphate of Ammonia
Sulphuric Acid—60°, 66° and Oleum
Tar Acid Oil Disinfectants
Tar—Crude and Road
Toluol—Nitration and Commercial
Xylol—10°, 5° and 3°



The Case of the Three Blind Alleys!

AUG. 24, 1948
VICE PRESIDENT OF NATIONALLY KNOWN ELECTRICAL EQUIPMENT MANUFACTURER, * SEEKING SOME WAY TO CUT COST OF DOING BUSINESS, WINDS UP IN THREE BLIND ALLEYS: 1) PRODUCTION COSTS ALREADY CUT TO THE BONE, 2) MATERIAL COSTS UNCONTROLLABLE, 3) COST OF LABOR GOING UP - NOT DOWN.

AUG. 25, 1948 2:00 P.M.
V.P. CHATS WITH DODGE MAN WHO SHOWS HOW DODGE REPORTS SAVE ADMINISTRATIVE AND SELLING TIME, EFFORTS, MANPOWER. V.P. QUICKLY SEES THIS IS THE PRACTICAL MODERN-DAY WAY TO CUT COSTS: SAVE SELLING EXPENSE. LET EXPERIENCED DODGE PROVIDE VITAL MARKETING INFORMATION AT "MUCH-LOWER-THAN-YOU-CAN-DO-IT-YOURSELF" COST.

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merce: "Without the motor vehicle, the present high volume of construction would be impossible." (Four groups together—construction industry, wholesalers, retailers, and the processing industries—operate around 35% of all over-the-road motor equipment.)

In other fields, dominated by the railroads, trucks have made some significant gains. They now carry 7% to 8% of all bituminous coal production, more than 12% of anthracite coal production (this doesn't include local delivery). A study of 19 steel plants also shows that motor carriers haul 21% of the total tonnage. And Commerce points out that though physical volume of manufactured products rose 75.5% from 1929 to 1947, rail movement of these goods climbed only 13.6%.

• **Speed and Economy**—Speed—not economy—ranks first among shippers' reasons for using trucks. Economy ranks second—but it's way outclassed by speed. Here shippers refer to shorter transit time, not speed on the open road. They say that trucks often give them faster service from pick-up to delivery.

But there's always the question of how long truckers are going to have a corner on speed. The increased range and scope of their operations has reduced the flexibility of the truck. Here are some of the difficulties they have been facing: inadequate terminals; necessity of concentrating shipments in order to improve load ratios; congested roads; need for transferring freight to connecting carriers on long hauls.

• **Rate Structure**—Commerce cocks a critical eye at the rates of for-hire trucking lines. It would like to see a revision of the rate structure, now a complex patchwork. One good reason for this is that when the motor carriers originally filed their tariffs with the ICC in 1936, they based them on rail rates. And that's pretty much been the practice ever since—whether valid or not. On top of this, truck increases—unlike rail increases—have not followed a national pattern.

Says Commerce: "This indefiniteness and confusion . . . hampers regulation of the motor carrier industry and probably alienates some shippers who otherwise would utilize highway transport more frequently."

• **Another Basis?**—Commerce also points a finger at the motor carriers' practice of using average operating ratio as "a measure of revenue needs and financial condition." It doesn't think that the industry has any real need for maintaining a high ratio of current assets to current liabilities.

Commerce urges instead a comparison of rates of return on net investment. On this basis, it thinks, trucking profits "are fairly substantial."

• **Truckers' Policies**—Viewing the whole truck vs. rail competition, Commerce



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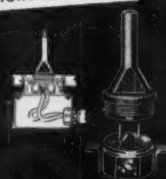
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service fitting
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bushing
Accommodates
terminal
block for
low potential
wiring, buzzer
and small
signal devices



says the outcome will depend to a great extent on the answers to the following questions:

- Will the trucking interests modernize their rate structure?
- Will the railroads revise their own less-than-carload rates in order to reflect true costs?
- If the railroads do, will the truckers follow by upping their own rates—even if their costs are well under the railroads'?

In short, a good deal hinges on what rate policies the truckers pursue. If the for-hire truckers price the shippers out of the market, the future of trucks will then depend on the ability of shippers to get into private trucking.

New Engine Here

Olds starts producing high-compression power unit with a 7 1/4-to-1 ratio; it will be standard equipment on 1949 models.

General Motors has taken a long step toward Charles F. Kettering's dream—the really high-compression engine. The company's hasn't gone all the way yet. Production and use of the 12 1/2-to-1 engine Kettering announced last year (BW—Jun. 14 '47, p. 52) is still years away. But the 1949 line of eight-cylinder Oldsmobiles—to appear around the first of the year—will offer a 7 1/4-to-1 engine as standard equipment. That ratio is a good bit higher than any standard car ever offered before.

• **In Production**—Last week the first production models of the new engine started to roll out of the Olds plant at Lansing, Mich. (BW—Apr. 17 '48, p. 80). They are of V-8 design, instead of the in-line type which Olds has been using. They develop 135 hp. Road tests have shown, says G.M., that gasoline savings run around 10% as compared with the present Olds eight-cylinder engine.

Compression ratio, in simple terms, is the relation between the volume of gasoline-air mixture as it goes into the cylinder and the volume to which it is squeezed down by the piston just before it is ignited by the spark. The average car today has a compression ratio of around 6 1/2-to-1; none is as high as 7-to-1.

A truly high-compression engine, like Kettering's 12 1/2-to-1, offers considerable operating economy. Trouble is, it requires a very-high-octane fuel if it is to run without knock. And such fuel is not available in quantity.

• **Convertible**—The new Olds engine can operate with the high-octane fuel available at today's corner gas pump. But it is so designed that, as soon as better gas comes on the market, it can be put into a higher-compression range



1. Maestro Mel of music fame came humming in one noon. "I like to be in harmony," he sang in joyous tune. "That's why I've come," our Mel did hum in his symphonic best, "for *everyone* at Statler really is a special guest!"



2. At last, upstairs, our maestro's cares began to melt away. 'Twas quiet there; in restful chair he snoozed till end of day. His radio was soft and low; he yawned, "I'll go to bed. 800 springs and more will bring sweet music to my head."



3. When he awoke, the maestro spoke: "All hail the Statler tub. With towels white to left and right, I'll jump right in to scrub. I needn't grope for cakes of soap—they're piled up stack by stack! And such a lot of water hot to flood my famous back!"



4. "The dinner bell," said Maestro Mel, "puts me in merry mood." So down he sped where he'd be fed some tasty Statler food. "It's harmony from A to Z!" said Mel about his meal. "The roof I'll raise in Statler's praise, that's how it makes me feel!"



5. "While I am here I'm always near to where I want to go; I'm never late for business date, for concert or a show. My time is gone; so, with baton, I'll bid you all farewell. Let travelers all obey my call and head for this hotel!"



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with comparatively simple changes in gaskets and cylinder heads.

Chief point of technical interest in the engines is the fact that the cylinders have been made shallower and wider. Because they are shallower, the piston stroke is shorter; this, say Olds engineers, cuts friction losses and results in an efficiency gain of about 4%. But, because they are wider, total piston displacement is actually greater than in today's Olds engine—303 cu. in. compared with 257 cu. in.

• **Modern Plant**—The plant that's making the engines is among the most up-to-date and efficient in the automotive industry. Its 170,000 sq. ft. of floor space is packed with huge transfer-type machines. (These do a whole series of operations consecutively, using automatic conveying equipment and electronic controls.) Some of these monsters are as much as 80 ft. long.

Tooling up the plant cost Olds about \$10-million. The mere fact that the company was willing to invest that much in such comparatively inflexible equipment as the transfer-type machines proves one thing: General Motors expects the high-compression engine to make good in a big way. Because, unless the machines can be used practically unchanged for several years, amortization cost would be prohibitive.



New 'Copter

Another variation on the helicopter theme is nearly ready for certification by the Civil Aeronautics Administration. It's the Kaman K-190, said to be the first helicopter with dual, two-blade intermeshing rotors to be flown in the U. S. K-190's builder, Kaman Aircraft Corp. of Windsor Locks, Conn., spent three years and \$300,000 producing the first test model. President Charles Kaman says that pending CAA acceptance, he plans to have 50 K-190's rolling off his 25-man assembly line within the next year.

Warming the Rails

Better heating system for diesel trains promises cold-weather relief. New generators, steam lines help.

When autumn comes, is winter far behind? The railroads don't think so. They're getting ready for cold weather. Their objective: to get you there warm and get you there on time in the winter.

Either objective is a man-size job. Combined, they are just that much harder. Last winter, the cold upset passenger schedules, forced roads to run shorter trains (BW—Feb. 14 '48, p. 31).

Cold weather means frozen couplings, cold lubrication, slowdown of servicing. In very cold weather, it's hard to get up steam in the steam engines. Less steam means less power, so the engines had to pull shorter trains. These troubles the roads can't do much about.

• **Licking a Problem**—One trouble the railroads think they can cut down is the difficulty they had heating trains drawn by diesels. And if they can do that, they'll have gone a long way to licking the time losses too.

Passenger trains are heated by steam from the engine. In a steam engine this steam comes from the boiler; in a diesel it comes from a special steam generator. The steam passes back through the cars in "steam lines." In cold weather the heat loss from the steam lines is serious when the train is going fast. It becomes hard to heat more than seven or eight passenger cars. So the roads had to choose between running cold cars at regular speed or warm cars at a slowdown—or cutting down the number of cars. Mostly the roads choose to travel warm.

• **New Steam Generators**—Many railroad men feel they can blunt the horns of this dilemma by using more powerful steam generators in the diesels. They feel that the original generators were too small. Several roads have replaced these generators, which had an hourly capacity of 1,600 or 2,250 lb. of steam, with larger generators of 3,000 lb. per hour capacity. Among these roads are: the Great Northern, the Baltimore & Ohio, the Santa Fe, the New York Central.

The Central is now getting even larger-capacity generators for its diesels from the Superheater Co., of New York. They can put out about 3,600 lb. an hour.

And next spring Vapor Heating Corp., of Chicago, will offer generators of 4,000-lb. and 2,500-lb. capacity—with no increase in size over its present 3,000-lb. and 1,600-lb. models. Generator size is important, because space on diesels is



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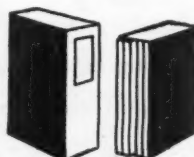
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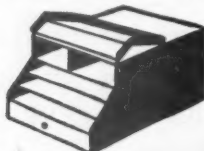
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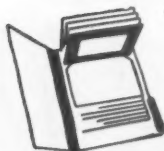
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limited. In fact, some diesel makers would like the railroads to put a "boiler car" on the end of their trains, to heat the last cars. A few roads experimented with this last winter.

• **More Units**—Railroads like those in western territory, which operate over mountainous country don't fare badly. They use two and sometimes three diesel units as a matter of course. Such combinations deliver really impressive volumes of steam. For instance, the three units of the Northern Pacific's North Coast Limited, between St. Paul and Seattle, can deliver 9,000 lb. an hour. It is the roads that ordinarily use only one unit, because they operate over relatively level country, that are likely to hit trouble in wintertime. They may have to add a unit, or shorten their trains.

The Chicago, Burlington, & Quincy is ordering twin steam generators for those of its recently purchased 2,000-hp. diesels that are to be operated as single locomotives, not in tandem. The purpose: to give standby steam capacity if one generator breaks down.

• **Bigger Steam Line**—Another very important factor in heating passenger trains is the size and insulation of the steam line itself. One heating expert says that a 2-in. line can heat only 12 to 14 cars going fast in below-zero weather, even if there's plenty of steam. A 2½-in. line can heat from 16 to 20 cars under the same conditions, this expert declares. The larger, better-insulated lines are being installed in all new equipment and in some of the older cars. The roads are also working on better steam connections between cars.

Some roads, like Union Pacific, which have had 2½-in. lines for several years, still figure on heating only 14 or 15 cars in cold weather.

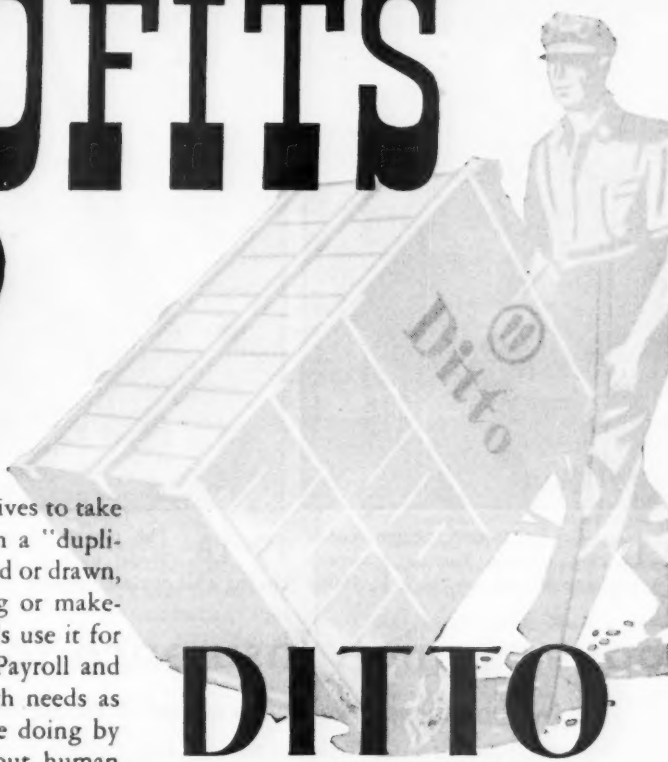
On the other hand, another railroad says two of its diesel units, each with 3,000-lb. steam boilers, will heat 17 cars at zero temperatures; three units can handle 25 cars. Probable reason for the disagreement: The roads operate over very different territory.

• **Insulation**—Still another of last winter's trouble-spots on diesel-drawn trains will be smoothed out this year. A lot of work has been done to winterize the diesel itself—insulating the generators and the fuel and water lines to generators. These lines often froze up last winter. That was partly because some roads hadn't had much experience with diesels. But after last winter's rugged workout, they are learning.

Such failures were often labeled "generator trouble," when as a matter of fact they weren't the fault of the generator at all. Now, maintenance and service crews are better trained, better able to keep crack passenger trains on schedule even in zero weather.

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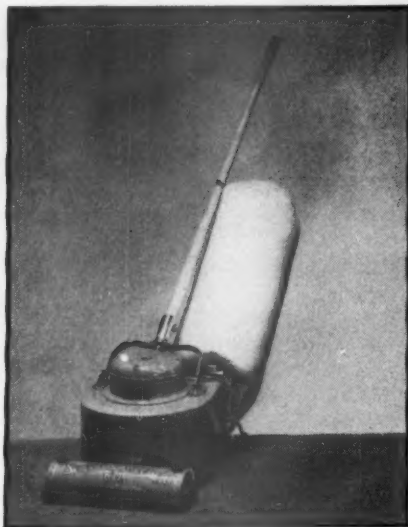


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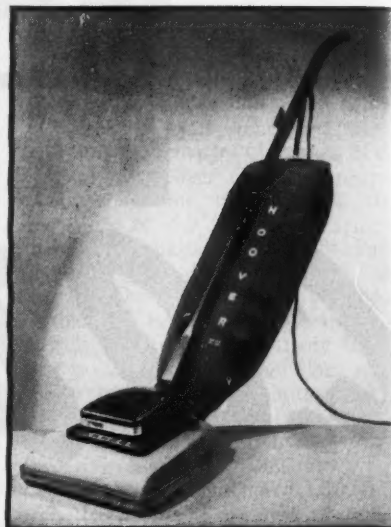
MARKETING



40 LB. The first Hoover vacuum, made by Electric Suction Sweeper Co., a predecessor company, back in 1908



19 LB. The present Hoover de luxe Model 61 sells for \$107, including a kit of cleaning tools



14 LB. The new Hoover Junior, announced this week, will cost only \$69.95, also including tools

Hoover Junior: Insurance for Future Sales

Lightweight, cheaper vacuum is aimed at people with small incomes or small apartments, as demand for big models drop some.

Vacuum cleaners were among the first consumer goods to be in full production after the war. Sales in 1946 were nearly 2.3-million—37% ahead of 1941, the top prewar year. And in 1947, 3.8-million units were sold—66% ahead of 1946 and more than 2½ times 1941. This year sales have been at about the 1947 rate.

As a result, the backlog of demand is beginning to wear thinner. Most of the cleaner makers started to notice the signs as early as last spring. And one of them—Hoover Co., of North Canton, Ohio, reputedly the largest in the field today—decided to do something about it.

• **Two Troubles**—Hoover had noticed two major things wrong with its market:

(1) Many people who needed and wanted a cleaner couldn't afford the going price of around \$90, and up (including cleaning tools).

(2) Many people who wanted a cleaner and could afford it lived in small apartments, and objected to the size of standard models.

• **New Product**—To Hoover, the answer was obvious—a smaller, cheaper job. This week the company announced the Hoover Junior (right picture, above). It's an upright model that weighs only 13½ lb., sells for \$59.95, plus \$10 for the cleaning-tool set. By contrast, the company's de luxe, full-size Model 61

(center picture, above) costs \$89 plus \$18 for tools, weighs 19 lb., 5 oz.

• **Stool**—Actually, the junior model gives Hoover a third, rather than a second, price line. Reconditioned sweepers (which got into the bigtime during the war) are the third leg of the stool on which Hoover hopes to sit out its future.

Marketing-wise, Hoover has thus put some elasticity ("give") into its prices. Lack of it during the depression ruined many a vacuum-sweeper maker. Partly because of high selling expenses, partly because dealers squawked, and partly because they just plain hated to do it, vacuum-sweeper makers cut prices less than 25% during the great blight of the thirties. Result: Sales were off around 40% (in units). Nor did the vacuum-sweeper people bother much with a sales booster tried out by the refrigerator people: cheaper, "stripped-down" models.

But apparently Hoover learned its hard lesson well. As demand stabilizes, or drops, potential customers can walk up or down the Hoover price stairs. They can buy a big model at a big price; a smaller model at a smaller price; a reconditioned job at a low price.

• **No. 3**—The Hoover Junior is the third new consumer product Hoover has added within the past 12 months. An electric iron and a tank-type cleaner were brought out late in 1947. That fact in itself might well be considered

news. For, ever since it built its first vacuum cleaner 40 years ago, the company has been well over on the conservative side.

• **Idea**—Old W. H. "Boss" Hoover had little interest in the vacuum-cleaner field. But he did listen, one day in 1908, to J. Murray Spangler, the asthmatic building superintendent of a Canton department store.

Every time Spangler's wife cleaned house, the dust she raised aggravated his asthma. So Spangler tacked some bristles to a revolving bar, borrowed a pillowcase from the linen closet, and came up with a gadget which would clean carpets without raising any dust.

• **Help**—"Boss" Hoover provided Spangler with three things: (1) some financial assistance; (2) a corner of his harness and leather shop; and (3) the services of his son, H. W. Hoover, to help run the new Electric Suction Sweeper Co.

The biggest job H. W. Hoover had was to sell the new contraption. And sell it he did. One sales bait that he used: a 10-day free trial in the home. To get dealers interested, each free-trial machine was sent to the potential customer through a local merchant. A lot of Hoover's present retail outlets first came into the fold that way.

• **Progress**—The Hoover Co. has come a long way from that harness shop. In 40 years it has sold more than 7-million vacuum cleaners; it is now turning out some 5,000 every working day. It also makes cleaners in England, Canada, and France, electric irons in a new plant at



IDEA MAN: D. G. Smellie, Hoover's chief engineer, encourages each member of the company's large engineering staff to make a record of any ideas he may get—whether or not the ideas are related to his work

Cambridge, Ohio, and fractional-horsepower motors at North Canton and in a plant at North Plainfield, N. J. And, moreover, it produces aluminum and zinc die-castings, which it sells to manufacturers of electric instruments and other appliances.

Hoover, Ltd., the 80.7%-owned English subsidiary, recently introduced a small washing machine, especially designed for people living in limited quarters. The parent company is watching this experiment with interest. But it has no plans for going into the washer field in this country.

• **Sales Methods**—Two methods are used to sell Hoover vacuum cleaners: (1) through retail appliance dealers; and (2) by its own sales force.

The Hoover salesmen do not go in much for direct door-to-door solicitation, however. Instead, Hoover operates its own departments in many department stores and big retail appliance outlets. These departments are staffed with Hoover's own salesmen. Few sales are made on the floor; in common with other cleaner makers, Hoover has found that the best place to sell a vacuum cleaner is right in the customer's home. So the salesmen, who work on commission, follow up their own store contacts by home visits. In addition to the salesman's cut, 17½% of all such sales is paid to the store for floor space and paper work.

• **Control**—The Hoover Co. today has about 2,000 stockholders. But the direct descendants of "Boss" Hoover are still very much in control. H. W. is president; there are five other Hoovers on the board. Since the war, grandsons

of the founder have gradually been taking over the reins. (Spangler died in 1916.)

The company's manufacturing operations are fully integrated—even to buying its own plastic powder, mixing it, and making its own plastic moldings. This integration is what has more or less pushed the company into the newer fields it now serves.

• **Castings, Motors**—Back in 1932, for instance, it had a lot of unused foundry capacity—because vacuum cleaner sales had dropped way down. So it started to sell commercial die-castings. Last year, these accounted for about 3% of its total sales of all products.

Another example: small electric motors. Hoover has been building its own cleaner motors for many years. In 1945, it jumped at the opportunity to buy up the Kingston-Conley Electric Co., North Plainfield, N. J., manufacturer of small motors. That gave Hoover more motor capacity than it needed for its cleaners, so it started selling motors. Present outlets are mostly farm-implement dealers, electrical contractors, and hardware stores. (K.-C.'s four largest customers are still on the same basis as they were before Hoover took over—motors are made for them under their own trademarks.)

• **Engineers**—Hoover has no plans at the moment for diversifying any further. But there's no telling what its engineering staff, under the direction of D. G. Smellie, chief engineer (picture, above), will come up with tomorrow.

Through its research in all phases of cleaning, the engineering division has pushed the company into several related and unrelated fields. For instance, Hoover holds a set of patents on domestic refrigeration equipment which it licenses to manufacturers in that industry. And a section of the engineering staff is permanently assigned to work closely with manufacturers of rug, carpets, and draperies.

• **New Ideas**—Standard equipment on every engineer's desk is the "idea pad." It is always in front of him, and he is encouraged to stop what he is doing at any time to sketch any new idea he may get. Such sketches are turned in for review. They go first to the engineer's immediate supervisors, then to Smellie. If they are thought workable and of value, they are put on a "project list," and assigned for study. In many cases the study is not made by the originator of the idea.

Today Smellie has 19 fat volumes, which he keeps under lock and key in his office. Bound in them are more than 14,000 ideas from the engineering staff, in blueprint form. More of these more or less feasible suggestions are added to this file each month, as the engineers come up with new ideas in the course of their regular work.



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MARKETING BRIEFS

SMALL MAIL ORDER COMPANIES are joining their big competitors in expanding the retail store business. National Bellas Hess, Inc., North Kansas City, Mo., has just opened its tenth apparel store. It's in San Juan, Puerto Rico; the other nine are in the South. Store sales the past year accounted for \$1.3-million of Bellas Hess' \$26.6-million business—up from just under \$1-million the year before.

GERMAN DYES INTEREST YOU? You can borrow the complete dye color catalog of I. G. Farbenindustrie from the Dept. of Commerce. The 57 volumes contain dyed swatches of many textiles, full detail on all Farben dyes. Commerce's Office of Technical Services will let you have it for 30 days, free except for transportation.

DESPITE MILL SHUTDOWNS rayon shipments in August were 15% ahead of August, 1947, though down 1% from July. Shipments totalled 93.2-million lbs. Shipments of 726.6-million lbs. in the first eight months this year are 18% ahead of the same period last year.

DUAL FUEL FOR AUTOMOBILES is being spot-tested on motorists in Columbus, Ohio. Three oil companies—Shell, Pure Oil, and Standard of Ohio—are marketing a special fluid called Vitol (a mixture of alcohol, water, and tetraethyl lead). Cooperating with them in the market test is the Thompson-Toledo Vitameter Corp. It makes the Vitameter, a device that injects the Vitol into a car's gasoline flow whenever the engine accelerates or is under heavy load.

FOOD SUPERMARKET OPERATORS are building up their trade association, the Super Market Institute, for tougher competition ahead. S.M.I. will concentrate on helping its 500 members with advertising, merchandising, and market research problems of their 4,100 big stores. Don Parsons, Federal Advertising Agency vice-president, will head S.M.I. after October 1.

SNOW CROP MARKETERS has cut out 11 of its frozen food distributors in New York City, is now selling direct to selected chains, supermarkets, and big independents. Since June, 2,000 retail outlets have been lined up.

RAILWAY EXPRESS AGENCY, INC., found an antitrust suit on its doorstep last week. The Justice Dept. charged that agency-railroad contracts "prohibited the rise of any competition."

HOW TELEGRAMS

SIMPLIFY RESERVATIONS,

HELP SAVE TIME AND MONEY



On the road, wires "Clear the Way." To assure accommodations on trains, buses, ships and planes—as well as good connections—travelers throughout America rely on Western Union telegrams to "go ahead" and make arrangements. Telegrams, the speedy written record, are sure to get there on time.



Hotel rooms "Ready, Waiting and Confirmed." When stop-offs are necessary, wires seeking accommodations precede travelers. Never any worry—you have your reservation. Hotels welcome advance reservations, make it a practice to wire confirmations.



Tickets "On the Aisle" by telegram. Western Union Money Order telegrams can be used to buy choice seats for the best plays, sports events, other amusements. For that familiar yellow telegraph blank always gets preferred attention.



Making reservations is only one of the many ways that telegrams serve business. Every day, thousands of organizations rely on Western Union to help conduct their operations profitably and to promote their products. Are you up-to-date on the many advantages of telegrams in business? Write or phone Western Union—a representative will be pleased to call at your convenience.

9 PROFITABLE WAYS TO USE TELEGRAMS IN BUSINESS

- ★ Acknowledgments
- ★ Sales Promotion
- ★ Shipments
- ★ Reservations
- ★ Announcements
- ★ Prices
- ★ Credit and Collections
- ★ Conducting Operations

Where the same message must be sent to many people, a Western Union "Book"—one telegram sent to a list of addresses—is convenient, economical and effective. When the Western Union representative calls, be sure to ask about this service—the swiftest way to send many messages simultaneously.

WESTERN UNION TELEGRAM

HR24 PD =
JOHN DOE & CO =
ANYWHERE USA =



**"I Found a Way
to Save \$6,222⁵⁰
in a dusty old desk drawer"**



● "I happened to be rummaging through an old desk about to be discarded for a newer model. In one of the drawers, gathering dust, I came upon a booklet labeled 'ATCO Material Handling Survey'."

"Upon closer inspection, I found it to be a complete and thorough study showing how we could save \$6,222.50 in just one phase of our radio cabinet unloading operation. It seemed fantastic . . . perhaps that's the reason it remained unacted upon. But \$6,222.50 is a lot of money to save. So I called in the ATCO Material Handling Specialist who made the survey."

"His time studies and cost figures told a truly amazing story of human energy saved, handling costs slashed unbelievably in the unloading of hundreds and hundreds of carloads of our difficult-to-handle radio cabinets."

"On the basis of his survey, we ordered 2 Automatic Skylift Electric Trucks, and 3 Transporter Motorized Hand Trucks. Skylift not only moved huge loads of radio cabinets from low-doorway freight cars, but also stacked them ceiling-high in storage. Then Transporter midgets of electric power moved the cabinets to production and the finished radios from the end of production line to shipping."

"Where formerly it took 25 man-hours to unload 1 carload of radio cabinets at a labor cost of \$32.75 per car, it now takes only . . . 6 man-hours to unload the same car . . . a saving of 19 man-hours or \$24.89 labor cost saved per car."

"Multiply this by the hundreds of carloads on our unloading schedule, and it adds up to a \$6,222.50 SAVED . . . a return of 75% on our investment . . . and on just one phase of our radio manufacture operation."

"An ATCO Specialist may be able to do for *your business* what he did for *mine*. At least let him make a survey. It costs you nothing. Mail the coupon."



AUTOMATIC TRANSPORTATION COMPANY

DIV. OF THE YALE AND TOWNE MFG. CO.

93 West 87th Street, Dept. P-8, Chicago 20, Ill.

Please mail me, without cost or obligation, complete facts about AUTOMATIC SKYLIFTS and TRANSPORTERS, the miracle electric trucks and how they can cut my handling costs.

() Have an ATCO Material Handling Specialist make a FREE survey of our handling costs.

Company Name

By Position

Street Address

City State

Auto-Order Backlog Put at 7-Million

How long will the lush auto market last?

J. R. Davis, director of sales for Ford Motor Co., gave a partial answer this week. The newest estimate of the backlog of demand for new automobiles is 7-million. This figure, based on an extensive marketing survey, was quoted by Davis at a meeting of the Federation of Automobile Dealer Assns.

At present production rates, it would take the U.S. auto industry 18 months to build that number of cars.

● **Another Factor**—There's one market factor the study didn't go into: New demand for cars keeps developing. If you take this into account, the sellers' market looks good for at least two years. You can get an idea of the way the market keeps growing from Davis' estimate that during the year ended last June the backlog jumped 32%—in spite of substantial car output.

The study shows that 29.8% of potential car buyers plan to buy within the next 12 months.

● **What Buyers Want**—Here are the main things that U.S. car shoppers say they look for today when they buy: 30.2% prefer economy of operation to any other feature; 22.8% want comfort first; 10% rate looks at the top.



Reddy on Guard Duty

That well-known power utilities symbol, Reddy Kilowatt, is doing an extracurricular job for Central Maine Power Co. He's acting as a traffic guard for linemen working in highway lanes. In addition to keeping the trademark before motorists eyes, tests have shown that Reddy does about a 60% more effective job in slowing down traffic than the old signs.

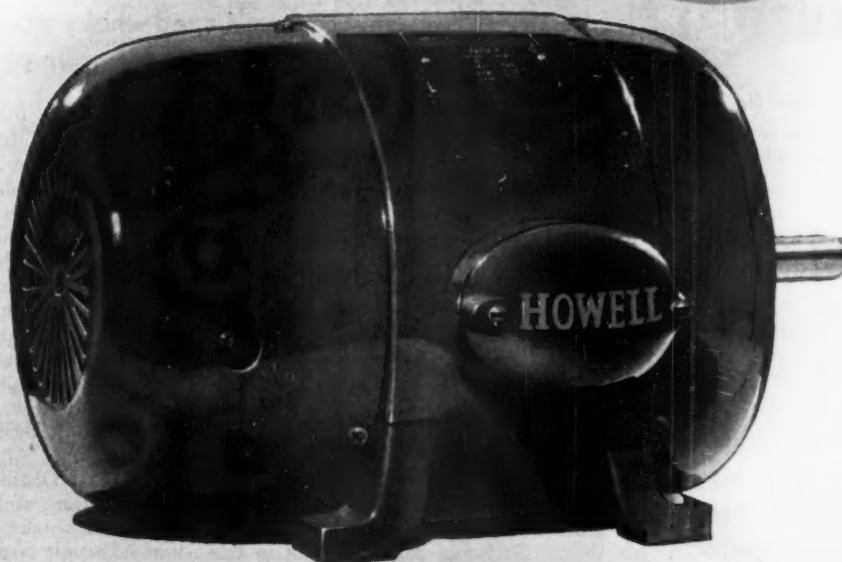
MECHANICAL CONSTRUCTION

- General-purpose, drip-proof
- Splash-proof
- Totally-enclosed
- Totally-enclosed, fan-cooled
- Explosion-proof
- Dust-proof
- Sanitary
- Specials—round body, vertical, flange and face mounting, built-in stator and rotor jobs, etc.
- Motor-generator sets for frequency changing

HOWELL

industrial type

MOTORS



Here's a complete line of industrial type motors you'll want to investigate.

For your *industrial* motor needs, choose an *industrial type* motor. The Howell Line of AC Motors comprises geared motors, motors with unique electrical characteristics, special mechanical form, or standard motors with any type enclosure from 1/6 through 150 H.P. Consult HOWELL!

PERFORMANCE CHARACTERISTICS

SINGLE PHASE

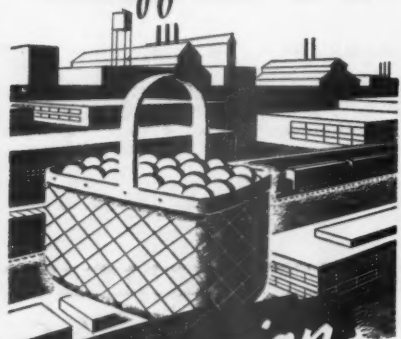
- Capacitor start, high torque
- Capacitor start and run, high torque
- Capacitor start and run, low torque

POLYPHASE

- Normal torque, normal starting current
- Normal torque, low starting current
- High torque, low starting current
- Medium slip, as for punch press
- High slip smooth acceleration (elevators, hoists, etc.)
- Multi-speed
- Slip-ring
- Intermittent duty
- Torque motors
- Special performance, high temperature duty, etc.
- Rapid reversing

HOWELL ELECTRIC MOTORS CO., HOWELL, MICHIGAN
MANUFACTURERS OF PRECISION BUILT, INDUSTRIAL TYPE MOTORS

LIKE *Eggs* IN A BASKET



Dispersion
AMERICA'S PLAN
FOR INDUSTRIAL SAFETY



Offers Industry Room for

- ★ PROFITABLE PEACETIME PRODUCTION
- ★ MAXIMUM WARTIME PROTECTION

America's future safety lies in the security of its industrial machinery. Mississippi offers industry the advantage of strategic plant sites away from congested "area targets," plus two major resources vital to peacetime industrial growth and wartime emergency:

- Access to the world's largest fuel and energy reserves.
- A reservoir of intelligent rural labor willing and able to work.

For specific information concerning your requirements write:

MISSISSIPPI AGRICULTURAL & INDUSTRIAL BOARD

New Capital Bldg. — Jackson, Mississippi
New York Office: 1001 Two Rector Street

Whisky Stocks and Usage, by Companies

Here are estimated figures of (1) stocks of whiskies more than four years old available from June 30, 1948, to July 1, 1949; (2) present annual rate of usage

of such whiskies over four years old; and (3) the shortage or excess of the stocks in relation to this usage (figures in original proof gallons):

	Stocks	Usage	Shortage (—) or Excess (+)
Seagram	10,500,000	18,000,000	—7,500,000
Schenley	25,000,000	15,000,000	+10,000,000
National	9,000,000	12,000,000	—3,000,000
Hiram Walker.....	8,000,000	6,500,000	+1,500,000
Publicker	12,000,000	5,000,000	+7,000,000
All others	27,000,000	16,500,000	+10,500,000
Total	91,500,000	73,000,000	+18,500,000

Behind Battle of the Blends

Schenley urges public to look at back labels, which state age of whiskies. Reason: Seagram's aged whisky stocks are low, so it's using younger ones. Meanwhile, Schenley wins fair-trade case.

There was plenty of activity in the liquor trade last week. On one front, the lines were being drawn for a rugged fight between distilling companies; on another, the big companies joined in speculation about the effects of a liquor fair-trade controversy. All in all, many liquor executives were aging faster than their fine whiskies.

• **It Says Here . . .**—The intercompany struggle centered around the fine print on the back labels of whisky bottles. That's where makers of whisky blends are required by law to state the age, amount, and type of ingredients in their bottled products.

During the war, aging whisky and grain neutral spirits for blending were short. So liquor consumers got in the habit of looking at that back label—it was one way to detect young whiskies or blends with cane or potato spirits. But after the war, quality came back into its own. The drinking public lost interest in the back label, began buying by brand name.

• **Look Again**—Now one of the "Big Five" distillers is telling liquor buyers, through an advertising campaign, that they had better start looking at back labels again. The ads trumpet the opening of what promises to become a fierce competitive struggle between two giants—Schenley and Seagram—for supremacy in the liquor industry.

The "Battle of the Back Labels" began when Three Feathers Distributors, Inc., subsidiary of Schenley Distillers Corp., opened its fall advertising campaign. The ads direct consumers' attention to the back label of the Three Feathers brand—a 35% whisky blend with five-, six-, and seven-year-old whis-

kies. This was followed by a drive to push Schenley Reserve, another 35% blend with aged whiskies. "Look at the back label and see what you're buying," these ads said in effect.

• **The Target**—The industry knew at once that the Schenley campaign was aimed against the trade's sales leader, Joseph E. Seagram & Sons, Inc. Seagram has been supplying almost a third of consumer demand through three sales subsidiaries—Frankfort Distillers Corp. (Four Roses, Hunter, Paul Jones, and Wilson); Seagram-Distillers Corp. (Seven Crown, Gallagher & Burton's); and Calvert Distillers Corp. (Lord Calvert, Carstairs, and Calvert Reserve).

Seagram's sales have been so good that its supply of aged whiskies is being drained. Over the past months it has been quietly changing the formulas of a number of its popular blends, replacing aged whiskies with three-year-olds (BW—Jun. 19'48, p22).

• **Front or Back?**—Seagram called its distributors and salesmen to New York for a conference shortly after Schenley opened its campaign. Victor A. Fischel, Seagram-Distillers Corp. president, met the challenge by telling his organization and the press: "The public buys the front label. They don't buy the back label."

The present struggle for supremacy goes back 10 years. From 1938 through 1943, Seagram led the industry in sales. Then Schenley forged ahead and held the lead through 1946. Seagram regained its first position in 1947 and holds it today. Schenley wants to get back in the lead.

• **Schenley's Supplies**—Schenley, with the largest stocks of aged whisky of any

PLANT MANAGEMENT: Start Cutting Costs Here*

General Electric's Authoritative New Movie
And Technical Manual Tell You How To . . .

- Make a materials handling survey in your plant
- Plan an integrated materials handling system
- Utilize new materials handling techniques
- Select the best materials handling equipment

YOU WILL START REALIZING the full significance of modern materials handling—and how its utilization can help you reduce that 36 per cent of your over-all production costs which doesn't add anything to the value of your product—when you see General Electric's new sound-color movie, "Materials Handling—In Receiving, Warehousing and Shipping." In this movie you will see the materials handling problems of a cross-section of industry—your problems. The solutions to these problems are worked out before your eyes with animated drawings and diagrams.

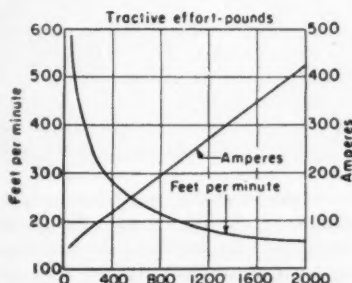


STEPS YOU SHOULD TAKE to correct existing conditions are all outlined completely, concisely in the 92-page technical manual which supplements the movie. Here is a partial list of subjects covered:

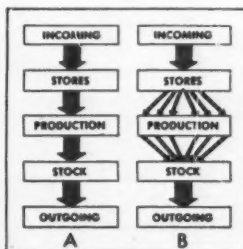
- What is modern materials handling
- Materials handling equipment and applications
- How modern materials handling speeds production
- Pallets, skids and containers
- Modern materials handling in receiving, warehousing and shipping
- How to make a materials handling survey
- Unit load shipping system
- Engineering data on conveyors, cranes, hoists, trucks

THIS MOVIE AND MANUAL are the newest additions to General Electric's **MORE POWER TO AMERICA** program, designed to help industry cut costs through more electrification. You are invited to see it at your earliest convenience. Arrangements can be made through your materials handling equipment supplier, utility, your G-E representative, or simply by returning the coupon below.

Don't delay! See it soon! This Materials Handling Program may show you the way to LOWER HANDLING COSTS - - GREATER PRODUCTION - - INCREASED PROFITS.



See how to estimate number of trucks required in your handling system



See how to make a work-simplification chart

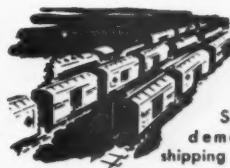


*A recent survey of 120 factories disclosed that **MATERIALS HANDLING COSTS** are 36 per cent of over-all production costs instead of the 25 per cent previously acknowledged.

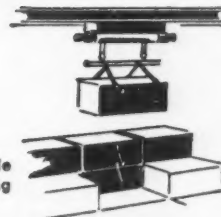
See how to move materials faster, cheaper by truck, crane or conveyor



See how to utilize the special pallets built to suit your particular needs



See how to cut demurrage by shipping in unit loads



See how to use all available warehouse space by stacking and tiering properly

General Electric Company, Section 668-69 Apparatus Department, Schenectady, N. Y.

☐ Please make arrangements for me to see the full-color and sound film "Materials Handling—In Receiving, Warehousing, and Shipping"

☐ Please send me a copy of your Materials Handling manual. Enclosed find \$1.25

Name.....

Position.....

Company.....

Address.....

City..... Zone..... State.....

More Power to America
GENERAL ELECTRIC

**YOU FINISH
THE MAIL
EARLIER
THESE DAYS.
WHY
IS THAT?**

**IT'S THIS
IMPROVED
HAMMERMILL BOND
THAT ERASES
SO WELL. NOW
I DON'T HAVE
TO RE-TYPE A
WHOLE LETTER
BECAUSE OF ONE
LITTLE MISTAKE!**



Clearer, sharper finished work on the smooth, glare-free surface of this improved paper!

Whiter than ever in its 35-year history, improved Hammermill Bond adds new impressiveness to your business messages!

Mail the coupon now for FREE sample book

Contains samples of improved Hammermill Bond in wide range of pleasing colors...and the brighter, purer white...also matching envelopes.



LOOK FOR THE WATERMARK IT IS HAMMERMILL'S WORD OF HONOR TO THE PUBLIC

HAMMERMILL BOND

Companion papers for office use include Hammermill Mimeo-Bond and Hammermill Dupli-Cor

Hammermill Paper Company, 1455 East Lake Road, Erie, Pennsylvania.
Please send me—FREE—the sample book showing the improved Hammermill Bond and include Packet of Letterhead-size sheets.

Name.....Position.....
(Please attach to, or write on, your business letterhead) BW 9-25

distiller, believes it now has Seagram over the whisky barrel. The company holds about 25-million gal. of aged whisky (four years old or more). This is more than enough to last until July 1, 1949, when the younger whiskies of all distillers come of age.

Currently Schenley is using its stocks at the rate of about 15-million gal. a year. In other words, unless it boosts its sales volume—or markets more whisky as bonds or straight—Schenley will arrive at the July 1 date with more than 10-million gal. of aged whisky.

• **Seagram's Supplies**—Seagram, on the other hand, has the sales volume but is short of aged whisky. It uses about 18-million gal. a year; yet it has only about 10-million gal. to last until July 1, 1949. Thus, at its current marketing rate, its aged whisky stocks won't last far beyond New Year's Eve.

Unless Seagram gets more aged whisky, the company is faced with two alternatives: (1) It can allocate its goods to distributors; or (2) it can throw more of the younger three-year-old whisky into some of its blends. In either case, sales volume might be affected.

• **Deal Falls Through**—There was a rumor last spring that Seagram would buy 8-million gallons of aged whiskies and neutral spirits from Publicker Industries, Inc. (BW—May 15 '48, p.49). The deal never came off. One industry explanation: Seagram couldn't make a financial arrangement that Publicker liked. Another: Publicker decided it would be more profitable to market the whiskies through its own subsidiaries.

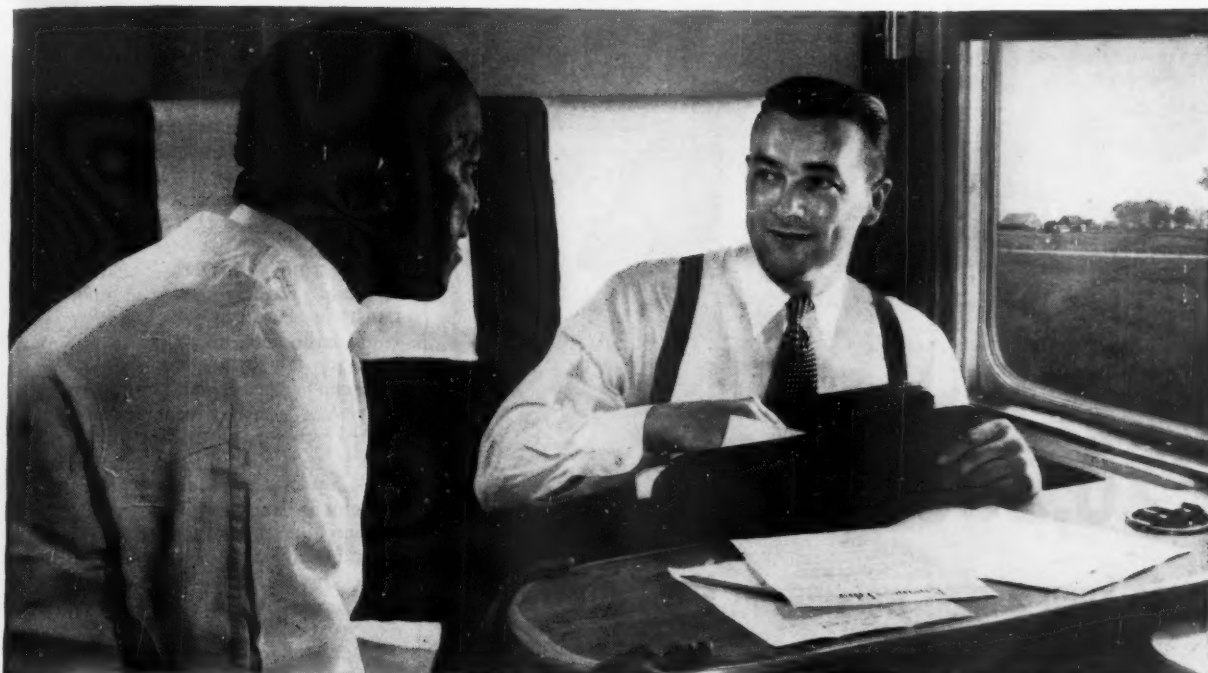
Publicker and Hiram Walker-Gooderham & Worts, Ltd., will probably side with Schenley in its sales struggle—they all have plenty of aged whiskies. National Distillers Products Corp., however, is likely to join Seagram: It, too, may well find itself short of aged whiskies (table, page 50).

• **Fair-Trade Law**—Schenley also figured in the other controversy which had the liquor trade buzzing last week. This activity focused on a five-day suspension of Three Feathers, Inc.'s license to do business in Illinois.

Since September, 1947, Illinois has had a mandatory liquor fair-trade law. It requires manufacturers to post with the Illinois Liquor Control Commission minimum prices below which retailers are forbidden to sell. Enforcement is in the hands of the commission, which can revoke retailers' and wholesalers' licenses for violation.

• **Suspension**—Last March the commission accused Schenley's Three Feathers, Inc., of advising a retailer to sell below the posted minimum price. Three Feathers appealed the five-day suspension to the courts. Last week, Illinois Circuit Judge Harry M. Fisher set the suspension aside. What set the liquor trade on its ear was this: One reason

How to rate with the men who rate you



1. Keep on top of your job.

One way to do this is to turn travel time into productive working time. You can if you go Pullman. Simply

ask the porter for a table (always available no matter what your accommodations)—and work on the way.



2. Let up without letting down.

Even time out is time invested when you go Pullman. You meet important people in the luxurious lounge car reserved for Pullman passengers. Enjoy yourself—as you enjoy them!



3. Get your 8 hours a night.

When you go Pullman you get up full of go after a swell night's sleep in that soft, big, clean Pullman bed. You're rested and ready. You feel like, you look like, a man going places!



4. Be there when you're needed.

And you *are* when you go Pullman. Because you arrive on dependable railroad schedules, right in the heart of town, convenient to everything. You're sure to rate with the men who rate you—'cause *they* go Pullman, too!

IT'S GOOD BUSINESS TO **Go Pullman**

Still time to see the Pullman Exhibit of new accommodations at the Chicago Railroad Fair—open through Sept.

It takes
\$20,265
 to keep a man working on the railroad



Yes, that's what it costs the railroads to provide each and every one of their 1,350,000 workers with the "tools" of his trade.

Behind the engineers and stenographers, the purchasing agents and ticket agents, the track walkers and tower men . . . everybody who works on the railroads . . . is an investment of more than 27 billion dollars.

These dollars . . . about \$20,265 for each employee . . . have provided the tracks, the cars and engines, the repair shops and all the other "tools" which make it possible for American railroad workers to move the greatest volume of traffic the world has ever known . . . with maximum safety, efficiency, and economy . . . and to earn the world's highest railroad wages.

Railroads are being continually improved. More powerful locomotives, freight cars of increased capacity, luxurious streamlined passenger trains, heavier rail, reduction of curves and grades, new signals that

increase safety and efficiency—all are being added as fast as materials become available.

To continue to improve America's greatest mass transportation system, the railroads should be allowed to earn enough to supply their workers with even more productive "tools." Only in this way—combining the resources created by the pooled and invested savings of millions of persons with the skill of railroad men and management—will the railroads be able to keep on furnishing the low-cost transportation that is essential to the life of the nation.

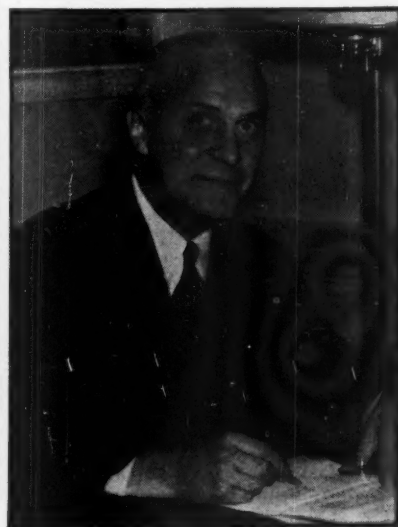


Fisher gave for killing the suspension order was his opinion that the mandatory fair-trade law is unconstitutional.

This opinion is not a ruling on the constitutionality of the law. But it has put the Illinois Wholesale Liquor Dealers Assn. into a mood to try to get such a ruling. The association has indicated that it will file a suit aimed at testing the constitutionality of the law before the Illinois Supreme Court within a week or so. A similar Kentucky law, differing only in being more stringent in its resale provisions, has been upheld by that state's highest tribunal.

• **Protecting Contracts**—The big distillers don't want to see the mandatory fair-trade law go—even though they could still rely on Illinois' voluntary fair-trade law to protect contracts with retailers to keep prices firm. The main reason for wanting to keep the present law—which applies only to liquor—is that it puts enforcement on the state's back; under the voluntary law, the enforcement burden is on the distillers. Meanwhile, the liquor commission has announced that it will continue to enforce the law until the supreme court decides a test suit.

But everything has moved into a twilight zone since Judge Fisher's decision. Sporadic price-cutting could start, maybe spread.



Container Executive

Henry J. Howlett is the new president of Container Laboratories, Inc. For the past 13 years he has been secretary of the American Management Assn., where one of his jobs has long been to handle the association's yearly National Packaging Exposition. In his new post he will direct Container Laboratories' consultant services to package suppliers and users—engineering, research, design, development, and methods.

for 10 Years



Industry after Industry!

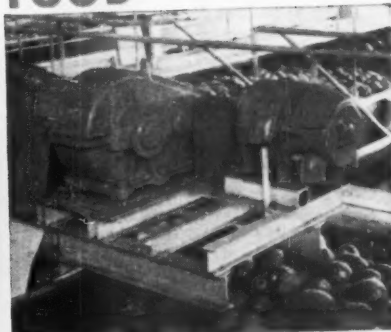
PAPER & BOARD



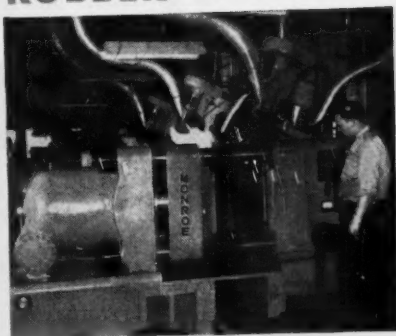
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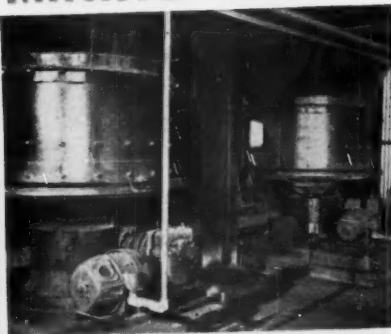
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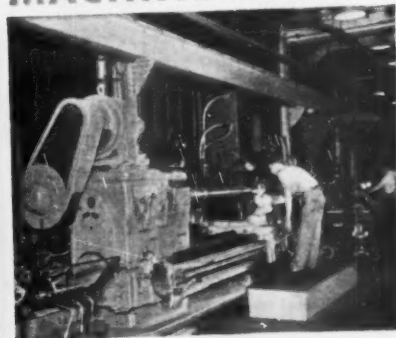
RUBBER



MINING



MACHINE TOOL



RELIANCE ELECTRIC AND ENGINEERING CO.

1069 IVANHOE ROAD • CLEVELAND 10, OHIO

"Motor-Drive for More Than Power"

**WHEN
FREIGHT
CAN'T
WAIT**



CALL WABASH

To speed your freight to the four corners or the center of the United States, ship the direct way... via Wabash... to and through the "Heart of America."

Between East and West, the strategically located Wabash "highballs" your freight with direct-line service from Buffalo to Kansas City... and Wabash serves North and South equally well. Get the details of Wabash service. Just phone a Wabash Freight Representative. There's one near you!

C. J. SAYLES
General Freight Traffic Manager
St. Louis 1, Mo.



1 Deer Lake Hills farm (near Detroit) is more than a farm. Behind its facade, Wood Bros., Inc., maker of mechanical corn pickers, maintains a modern educational plant

Sales School on the Farm

The record corn crop which U.S. farmers expect to harvest this year means good pickings for at least one group of businessmen: the makers of mechanical corn harvesters. Among the larger manufacturers of corn-picking equipment who hope to reap sales profits this fall is Wood Bros., Inc., of Des Moines, subsidiary of Detroit's Dearborn Motors Corp.

To sell and service the 18,000 pickers the company expects to produce this year, Wood Bros. is taking its employees back to the farm. At Deer Lake Hills, near Detroit, managerial personnel from Woods outlets are learning how to sell,

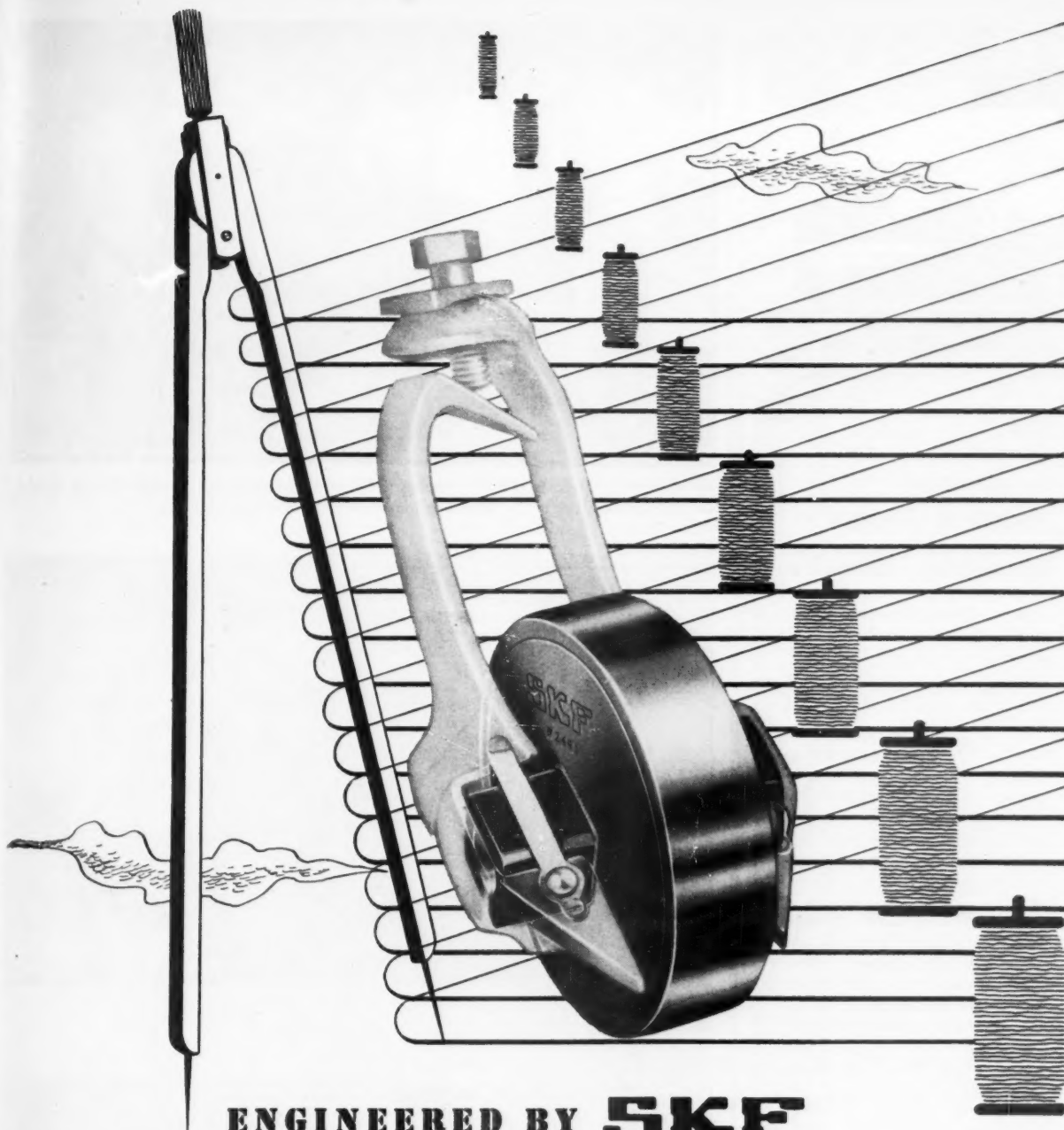
service, repair—and use—mechanical pickers. The course comprises one week of intensive instruction sessions, including plenty of classroom, shop, and field experience.

Corn harvesters made their bow just after the depression when the use of rubber-tired tractors was developing. It is estimated that the corn belt alone has about 140,000 mechanical pickers at present.

A modern one-row machine can pick from 500 to 700 bushels of corn a day. Hand-picking—one man with a team of horses—puts about 80 bushels into the crib at day's end.



2 In classrooms indoors, sales and service managers from Wood Bros. outlets study movies and charts on the inner workings of corn pickers (TURN TO PAGE 60)



ENGINEERED BY **SKF**

Tremendous strides have been made in spinning frame performance since tape drives superseded the old band drives. **SKF** originated the anti-friction tension pulley for tape drives in the textile industry.

SKF has pioneered again to provide a ball bearing tension pulley to fit existing brackets, thus eliminating change-over expense.

The bearing in this pulley is positively sealed against all lint and fly and is prelubricated to run without attention for 25,000 service hours. It saves power and maintenance costs. It assures uniform spindle speed.

7026

SKF

BALL AND ROLLER BEARINGS

The right bearing in the right place

SKF INDUSTRIES, INC., PHILADELPHIA



**the
diesel-electric
locomotive
marks a change in
RAILROAD THINKING**

A few years ago every American railroad was proud of the individuality of its locomotive designs. You could hardly mistake the engines of one road for those of another.

Today the only difference between many of them is the color of the paint on the shells of the diesel-electrics. Private taste and engineering aesthetics have had to give way to the cold, cruel facts of operating costs per ton-mile.

the cold, cruel facts of lubricating oil costs and engine maintenance on diesel-electric locomotives speeding passengers and freight into and out of the Washington area have resulted in the installation of Briggs Oil Clarifiers. The results—two or three times as many hours of lube oil life and thousands additional hours engine work time without overhaul. And under the blue or green or black of the locomotive shells the oil clarifier is the same—

It's a Briggs

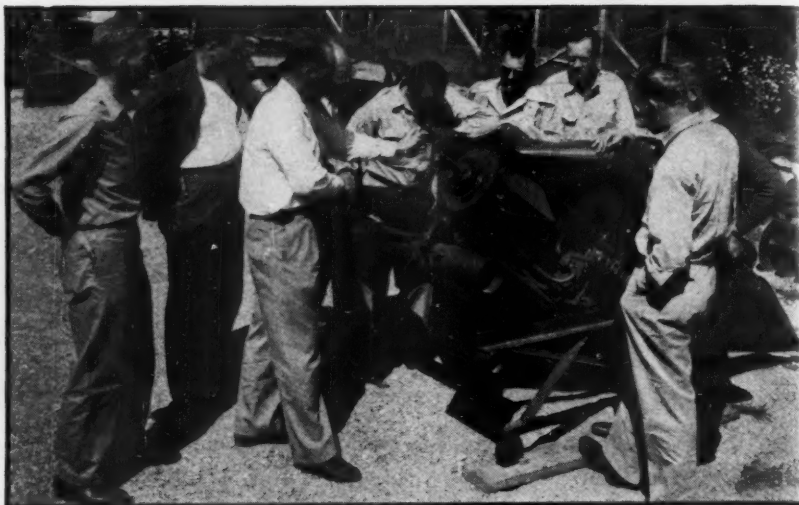
A word from you and an engineer from the nearest Briggs distributor will call to discuss your oil filtration problems.

Briggs

PIONEERS IN MODERN
OIL FILTRATION

THE BRIGGS
FILTRATION CO.

BETHESDA 14 MARYLAND



3 Outdoors, students examine mockup sections of the machine. Fortified by an instruction session, the group returns indoors, where it turns its efforts to . . .



4 Actual picking machines. The idea of learning by doing is adhered to closely in the service shops. Students take apart, study, and reassemble pickers before . . .



5 They actually operate the equipment outdoors. When the course is over, Wood Bros. returns its students to their districts to teach sales and service to their own employees

SCIENCE

Secrecy Versus the Law

Vanadium antitrust case raises problem: How to handle business litigation where secret atomic information is part of the evidence? Answer: Drop the case.

What happens when a company tangles with the law—and it takes secret atomic facts to untangle the legal knots? With hundreds of business concerns involved in the developing atomic industry, that's a question that's bound to be asked more and more often.

• **Ducking for Safety**—To date, the answer is: The law ducks. Both the Dept.

of Justice and the Atomic Energy Commission are doing their best to avoid facing head-on any court case in which some of the evidence cannot be spread on the record.

The latest instance is an antitrust suit involving nine vanadium producers. The charge: conspiracy to monopolize the supply of vanadium and its ores, and to



Hush—sh—sh—sh . . .

In the "Dead Room" of Bell Telephone Laboratories at Murray Hill, N. J., it's so quiet you can hear your own blood circulating as you stand there. Bell technicians say it's the quietest place on earth. Secret of the silence is the wall surfaces, which are

lined with honeycombs of Fiberglas, five feet thick. The technician in this picture is standing on the steel mesh floor, in the geometric center of the chamber. The room is used for testing of telephonic and electronic equipment.

GOOD WILL

All Through the Year
—Not Just at Xmas
May Be Obtained For

YOUR FIRM

WITH AN ATTRACTIVE, USEFUL
ADVERTISING SPECIALTY

FROM

The EXECUTIVE Line



Illustrated here is a 6 inch Pocket Ruler in 18-8 Stainless Steel.

It's furnished in a metal bound leather case on which your advertisement may be gold stamped. The back of the ruler has a useful table of Decimal Equivalents. It's priced about 43c each.

In lots of 500 or more, this Ruler may have your advertisement etched directly into the metal, either on the front or back, at 32c each, with a depth gauge sliding clip, no case needed.



This trademark identifies advertising specialties of quality, which may be used to reach just those people whom you want to remind of your firm or its products.

Other items we make for this highly selective type of advertising are

50-YEAR DESK CALENDARS
STAINLESS STEEL RULERS
CALIPERS • LETTER OPENERS
PROTRACTORS • TAPE MEASURES
LIGHTERS • KNIVES
NOVEL PAPERWEIGHTS
CRYSTAL GLASS ASHTRAYS
BILL CLIPS • MEMO TRAYS

Select an advertising gift from
The EXECUTIVE Line now and distribute early
to obtain best results.

If you cannot locate a reputable Advertising
Specialty firm in your vicinity who handles
The EXECUTIVE Line,

write to

ALFRED ROBBINS ORGANIZATION, INC.
136 West 54th Street New York 19, N. Y.



PHONE TODAY FOR
Toridheet
AUTOMATIC HEATING

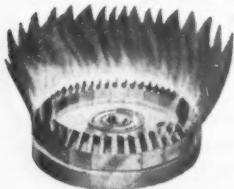
Plenty of fuel wasted at your house last winter? You weren't any too comfortable, either, were you? It will make a big difference if you replace that old, inefficient, costly-to-operate heating equipment with modern, perfected Toridheet automatic heating.

Then the house will be warm as toast and you'll still conserve fuel. That clean, quiet and healthfully uniform heat will make your home better to live in . . . worth more to own because it will cost less to heat.

But don't wait till winter's here . . . solve your heating and fuel economy problems now. Ask the responsible Toridheet dealer for his recommendations and estimate today. Replacement is amazingly fast. Takes but a few hours.

The Toridheet dealer is listed in the yellow pages of the Telephone Directory under "Oil Burners." Phone him now, or write direct to us for information. CLEVELAND STEEL PRODUCTS CORP., Cleveland 2, Ohio.

"Your Home's Complete with Toridheet"



Famous
Toridheet
Rotary Wall
Flame Saves
Fuel.



TORIDHEET DIVISION

CLEVELAND STEEL PRODUCTS CORPORATION
CLEVELAND 2, OHIO

A COMPLETE LINE OF AUTOMATIC HEATING
EQUIPMENT FOR OIL AND GAS

fix prices. Justice got a civil indictment in June, 1946, but the case has been in abeyance for two years. A few days ago Justice lawyers got permission from the district court in Denver to drop the indictment.

• **Difficulty**—Vanadium ore is the principal domestic source of uranium, the atomic fuel. During the war years, several of the defendants bought and processed ores as agents for the government's bomb-building Manhattan District. They argued that, to defend themselves, they'd have to explain how the alleged conspiracy was part of their work for the government. The Justice Dept., in the same way, would have to produce production and reserve figures on ore to try to sustain its monopoly charges.

But the Atomic Energy Commission, custodian of bomb secrets, insisted that production of any such information would be a dangerous violation of security.

• **Indictment Revised**—The only way out that Justice could see was to drop the whole question of ore monopoly. For the civil indictment the department has now substituted a criminal information (which has the effect of an indictment); this is limited to charges of monopoly and price-fixing on vanadium itself and its products.

The information is brought against: Vanadium Corp. of America, Union Carbide & Carbon Corp., U. S. Vanadium Corp., Electro Metallurgical Co., and Electro Metallurgical Sales Corp. (the last three all subsidiaries of Union Carbide & Carbon). The original indictment had also listed Electro Metallurgical Co. of Canada, as well as individual officers of several of the companies.

• **In Safe Hands**—Justice Dept. lawyers could reconcile themselves to dropping the ore question for this reason: Since the indictment was issued, passage of the Atomic Energy Act has put all uranium ores under complete AEC control. The public interest, they told themselves, is now adequately protected.

AEC and Justice lawyers have agreed that the revised action can be prosecuted without too much danger of treading on ticklish ground.

• **No Answer Yet**—The vanadium case still leaves the big question wide open: What happens when the issue can't be ducked? Will the answer be, maybe, some system of secret hearings—along the lines now followed when a government employee is up for dismissal on security grounds?

HAVE-NOT WORLD

The world is short of zinc, lead, tin, mercury, platinum, and petroleum—and something should be done about it. That's what T. S. Lovering of the U. S.

Geological Survey told the meeting of the American Assn. for the Advancement of Science, in Washington this week.

This is the domestic picture: There's an ample supply of coal, phosphate rock, iron ore, and molybdenum ore. Good for about 20 years are copper, aluminum, zinc, gold, and maybe petroleum—based on present technology and known reserves. Due to run out in less than a decade are manganese, vanadium, and lead.

Lovering urged restrictions on use of scarce materials, creation of a permanent, well-financed agency to develop new extraction methods and substitute materials.

New Diseases

They come from new chemicals and radioactive substances, can mean lawsuits for employers when not compensable.

New chemicals and radioactive substances have brought new and obscure occupational diseases. These, in turn, have meant fresh insurance problems and new hazards for employers.

• **Three New Ones**—Last week this problem was outlined at a roundtable at the American Bar Assn.'s annual convention in Seattle. Ashley St. Clair, as-



To Keep Current Flowing

This workman at Westinghouse Electric Corp.'s East Pittsburgh Works looks as though he is tuning up outboard motors. Actually, he is completing assembly of devices which will be installed on rural electric lines. Their job: to guard against prolonged service interruptions. Called GR circuit reclosers, the units reclose electric circuits automatically after "breaks" caused by overloads or short circuits.

sociate counsel of the Liberty Mutual Insurance Co., Boston, listed these three new occupational diseases:

(1) Lung cancer now found to come from long exposure to some forms of chromium.

(2) Respiratory ailments from exposure to some beryllium compounds.

(3) Diseases caused by radioactive isotopes.

• **Lung Cancer**—Recent studies undertaken by Dr. Williard Machle of New York City showed that the incidence of fatal lung cancer among chromate workers was 18 to 50 times normal. The main hazard is long exposure to dust or fumes in the reduction of chrome ore. The length of exposure may vary from a few years to forty years.

• **Beryllium Poisoning**—Beryllium poisoning follows exposure to dust from a beryllium compound. Workers exposed to this hazard include those in beryl mines and extraction plants; in steel and nonferrous foundries where beryllium is an alloy constituent; in plants producing phosphorus, fluorescent lamps, and radio tubes; and in plants using phosphorus that contains beryllium.

St. Clair told the lawyers: Increasing use of beryllium in industry makes the subject of prime importance. The disease may not appear for as long as five years after exposure ends. But either of two common forms of it may be fatal.

• **Radioactive Diseases**—Radiation diseases, though not new, are likely to become more common. The reasons, of course, are the growing use of radioactive isotopes in industry and medicine, and the possible use of atomic energy for industrial power.

St. Clair said that here, too, the disease may not appear for months or even years after exposure has ended.

• **Compensation Laws**—Protection under workmen's compensation varies among states. All of the 20 states which protect against specific occupational diseases include chrome poisoning; 16 include radiation diseases; only one covers beryllium poisoning.

Yet even in these states—and in a dozen others where all occupational diseases are compensable—the fact that the disease shows up so long after exposure commonly bars claims for compensation benefits. In New Jersey, for example, a worker can't get compensation for lung cancer due to chrome if it appears more than five months after exposure ceased.

• **Possible Suits**—Until every state compensation law gives workers complete protection, St. Clair warned, "the American employer will face in many jurisdictions the hazard of common-law suits by employees who suffer from noncompensable diseases."

St. Clair suggested that insurance companies fill the gaps in the protection afforded employers by offering universal compensation policies.

Why are the better informed

addressing machine users everywhere changing

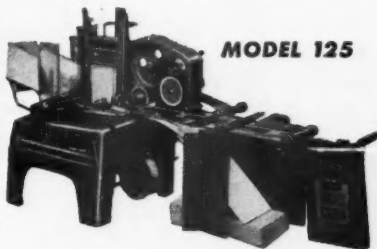
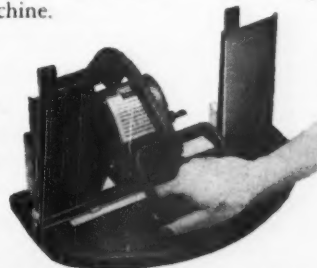
to the *Elliott* addressing system?

1. Any typist with any standard typewriter can stencil your addresses into Elliott address cards and thus keep your mailing list up-to-date every day.

2. With the Elliott Addressing System a typist can stencil and prepare for filing from four to seven Elliott address cards in the same time it takes to emboss and assemble one old-fashioned card index metal address plate with an old-fashioned embossing machine.

\$45 ADDRESSERETTE

3. For mailing lists of a few hundred names, Elliott offers this new \$45.00 Addresserette into which the addresses are tray loaded and tray unloaded 125 at a time.



MODEL 125

4. For straight address work, Elliott offers this new \$185.00 addressing machine. It automatically feeds and addresses envelopes, post cards and other forms at a speed of 125 per minute which is from three to five times faster than any competing addressing machine in its price class.

5. For large Mail Order, Public Utility, Publishers, etc., Elliott makes more than 100 different sizes and models of addressing machines ranging in price from \$500.00 to \$15,000.00. They accomplish results that no competing addressing machines can accomplish.

6. The mechanical engineers of America's biggest concerns bring their problems to Cambridge, Mass., and in the majority of cases they discard old-fashioned mechanical addressing equipment and install better, faster, more versatile Elliott Addressing Machines.

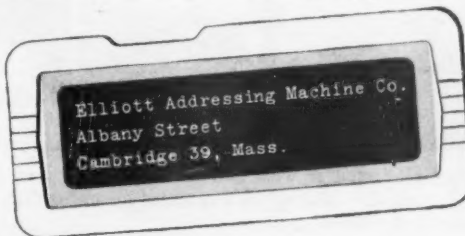
7. And, it's not difficult to change to the Elliott System. Because Elliott supplies the stencilled address cards in special filing trays to fit your present metal address plate filing cabinets at a charge of only 2¢ per address—and Elliott makes a cash allowance for old-fashioned addressing equipment thus displaced.

We have two very interesting pocket size booklets that we would like to send to you.

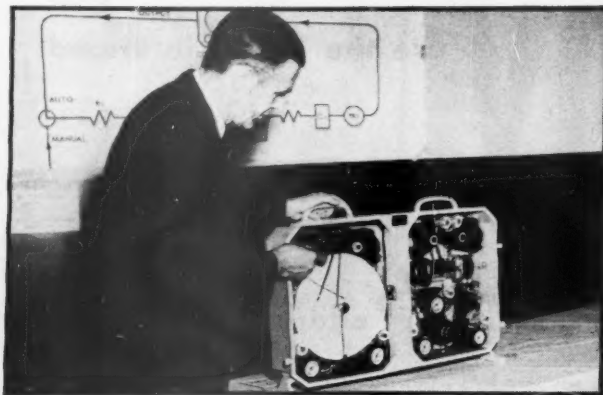
**THE
ELLIOTT ADDRESSING
MACHINE COMPANY**

Dept. 9-C, 151 Albany Street
Cambridge 39, Mass.

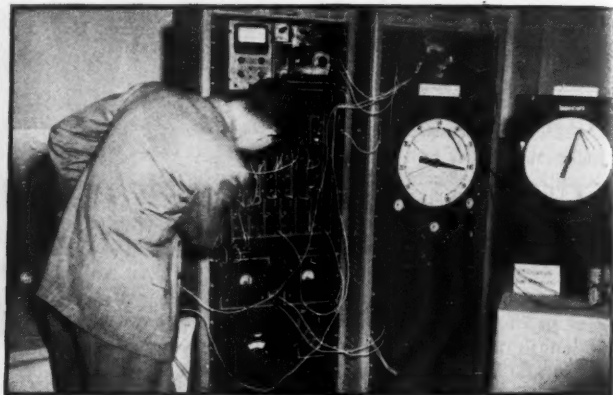
With Branch Offices in all large cities



PRODUCTION



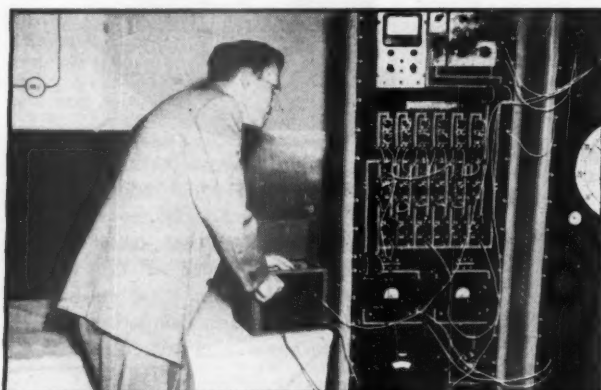
Pneumatic analog



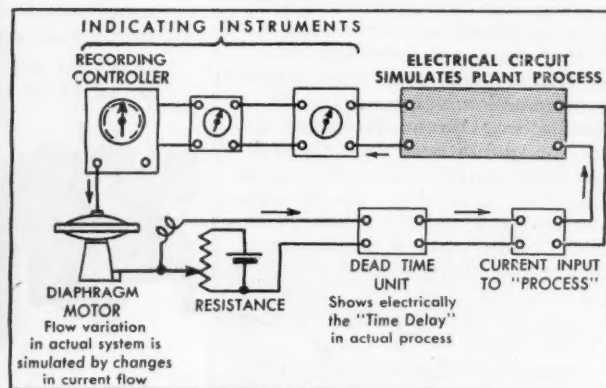
Electrical analog

Machines Predict What Happens in Your Plant

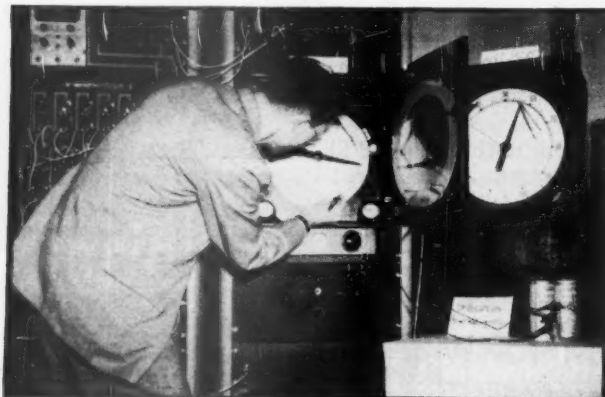
Analog computing instruments duplicate in the laboratory the effect of changing conditions on a plant process. The picture series below shows how an expert gets his answers.



1 Robert M. Hutchinson, Brown Instrument Co. engineer, wants to test a steel soaking pit process. He sets dials of an electrical analog to duplicate plant conditions



2 Through a complicated electrical circuit like this, these "conditions" become electrical impulses that are recorded. (Actually this drawing is of a fluid-heating process)

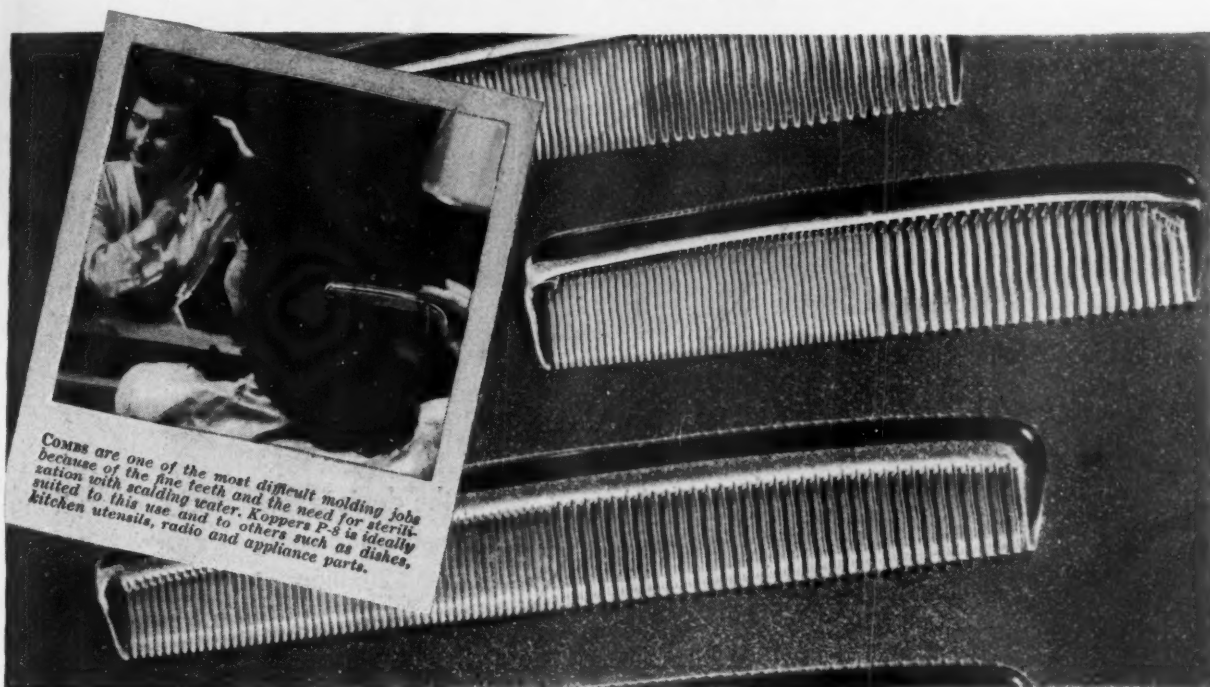


3 The result of what normally happens to steel ingot temperatures in a soaking pit is recorded on analog dials that Hutchinson reads. Then . . .



4 Hutchinson "opens a furnace door," or makes some other change in operating conditions, by resetting the analog, which will simulate what goes on then (TURN TO PAGE 70)

Koppers announces a New Plastic POLYSTYRENE P-8



COMBS are one of the most difficult molding jobs because of the fine teeth and the need for sterilization with scalding water. Koppers P-8 is ideally suited to this use and to others such as dishes, kitchen utensils, radio and appliance parts.

... with high heat resistance ... fast, easy moldability at no extra cost

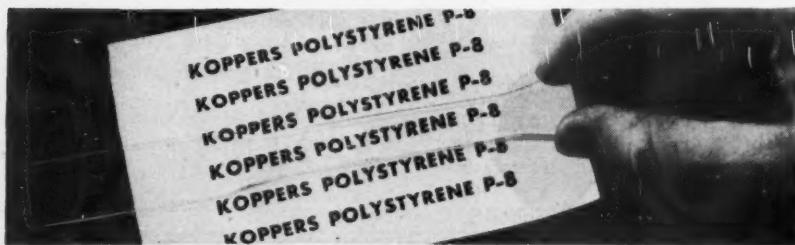
POLYSTYRENE is one of the most economical and widely used of all plastics. Everything from toy automobiles to plastic dishes to refrigerator parts to portable radio cabinets is made from this versatile low-cost material. The only trouble was that scalding water or the concentrated heat of a radio power tube would often cause it to twist out of shape or sag. Manufacturers

had to use premium priced plastics to get the necessary heat resistance.

Koppers chemists went to work on this problem. Now they have the answer in Polystyrene P-8. This new polystyrene really stands up under heat exposure with greatly increased dimensional stability. The availability of Koppers Polystyrene P-8 further reduces the limitations on

polystyrene applications due to heat. But this is not all—P-8 molds faster and better. It has crystal clarity—equal to glass—or can be made in any color of the rainbow—soft pastels, brilliant hues, snow-white or jet-black.

With all these plus factors, Koppers Polystyrene P-8 sells at the same price as regular polystyrene. Used for your products, it means more pieces per hour, a higher percentage of perfect pieces, a better product—at considerably lower cost. Send the coupon for complete information. We'll gladly ship a trial drum of P-8 to your molder on request.



HIGH CLARITY Printing photographed through a bar of Polystyrene P-8 shows a clarity equal to fine glass.

Koppers Plastics



KOPPERS COMPANY, INC.
Chemical Division
Koppers Building, Pittsburgh 19, Pa.

SPECIAL OFFER

Koppers Company, Inc.
Dept. BW #23
Pittsburgh 19, Pa.

Please send me complete information on Koppers Polystyrene P-8. () I am also interested in free samples for a trial run.

Name.....
Position.....
Company.....
Address.....

*POLYSTYRENE *CELLULOSE ACETATE *ETHYL CELLULOSE

TOM-TOMS TALK



SEND YOUR
OVERSEAS MESSAGE

Via RCA

It's faster!
RCA

"A little bird will tell you"
if your
WATCHMAN
is on the job
No. 2024

CHICAGO WATCHCLOCK System

REDUCES INSURANCE COSTS

Keys—placed at fixed intervals—make a permanent record on the dial encased in the clock; a daily report of your watchman's performance... The cost of this greater property-protection service soon is refunded through reduced insurance rates!... Ask for sample dial (the tell-tale "bird") and details.

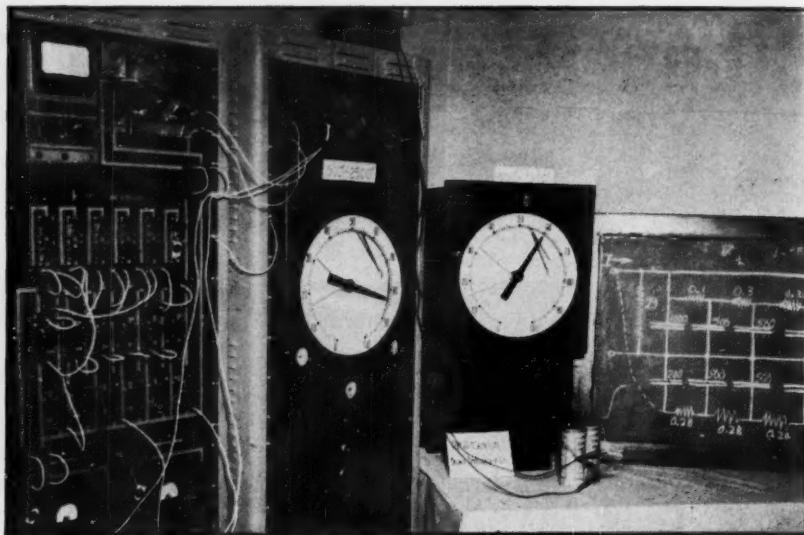
CHICAGO WATCHCLOCK DIV.

GREAT LAKES INDUSTRIES, Inc.

The First—and Still the First

1524 S. Wabash Ave., CHICAGO 5
Offices in Principal Cities

FOR OVER 60 YEARS



5 The analog's charts show what has occurred to ingot's temperature with conditions changed. The readings can then be compared with normal, giving a guide to plant operation. (Picture sequence was worked out by Paul C. Hoell, du Pont engineer.)

Instruments Guide Industry

Analog is only one of the devices that now do everything from counting beer bottles to controlling complex processes. More than 1,200 makers now turn out \$2-billion worth of instruments.

In Philadelphia last week, technicians and management men closely inspected an instrument which, in effect is a mechanical crystal ball. Used in predicting process operation, it was one of the highlights at the American Instrument Fair and National Instrument Conference. And in a sense, the robot prophet (called analog) is a symbol of progress in the instrument industry—already a \$2-billion baby and still growing.

• **Its Job**—The analog (means "analyze" and "record") will duplicate in advance an entire, complex process in a plant. It does this at high speed and at the laboratory level. In short, it gives a total picture of an operation—and the effect of possible disturbing factors—before the plant starts work.

Electrical, pneumatic, or hydraulic elements make the instruments work. They can give experts accurate process information that can be plotted into performance curves.

• **Few Machines**—The machines look easy to use, but only technicians can handle them. Right now, only a limited number of analogs is available; and most of those are in the hands of instrument companies like Brown Instrument, Taylor Instrument, Reeves Instrument, George A. Philbrick Researchers, and the Foxboro Co. You can get the benefit of an "analog analysis" by bringing the problem directly to one of the com-

panies which will dig out the answer, make instrument recommendations.

Analogs are descended from gunfire control setups developed in World War II. They are cousins of the electronic computer. They were used to predict the performance of the complicated atomic processing plant at Oak Ridge. In that case, the miles of interrelated instruments couldn't be juggled after the plant started; the scientists had to know what was going to happen in advance. Analogs helped them get the bugs out.

• **Other Instruments**—The analog was only one of the recent developments in the instrument field shown at the fair. Among others were:

(1) Simplified designs to make instruments easier to use, maintain, and install;

(2) Applications of new electronic devices like the transistor (BW-Jul.10'48,p39);

(3) Wider use of synthetic crystals (like sapphires) and sonic forces for measurement (BW-Feb.7'48,p54);

(4) Experimental work with new developments like the magnetic clutch (BW-Apr.10'48,p72).

• **Wait**—You now have to wait 12 to 15 months for deliveries of most scientific instruments; big expansion in research facilities has created a huge demand.

Production control devices, for the

More people drive
CHEVROLETS
than any other make of car



From every angle—beautiful!

CHEVROLET
-and ONLY Chevrolet-
IS FIRST!



Again in 1948, Chevrolet is America's favorite motor car. More people buy it, and more people drive it than any other make, because it gives more value! You'll find this 100% true, and the very fact that CHEVROLET AND ONLY CHEVROLET IS FIRST in popular demand—this year and for the total 17-year period, 1931 to date—is your assurance that it's the one car offering BIG-CAR QUALITY AT LOWEST PRICES!

CHEVROLET MOTOR DIVISION, GENERAL MOTORS CORPORATION, DETROIT 2, MICHIGAN

Remington Rand is a BW advertiser is a BW

**And has been since
BW's first issue
...19 years ago**

Remington Rand machines, systems, equipment and supplies are bought by Management-men...the executives of business and industry who make or influence buying decisions for their firms. To "call on" these men between salesmen's visits, the company has found it pays to use the pages of Business Week...regularly, week after week. Altogether, Remington Rand messages have appeared in nearly 400 of the 992 issues which Business Week has published. No other general business or news magazine reaches such a high concentration of these *important* men...buyers!

BUSINESS WEEK FIRST...FOR 10 YEARS

Advertising in Business Week produces *results*. Otherwise, Business Week for the past 10 years, and in 1947, would not have been—

1. FIRST...

In *page* volume of business goods and services advertising. Total: 3110 pages.

2. FIRST...

In *number* of business goods and services advertisers. Total: 623 advertisers.

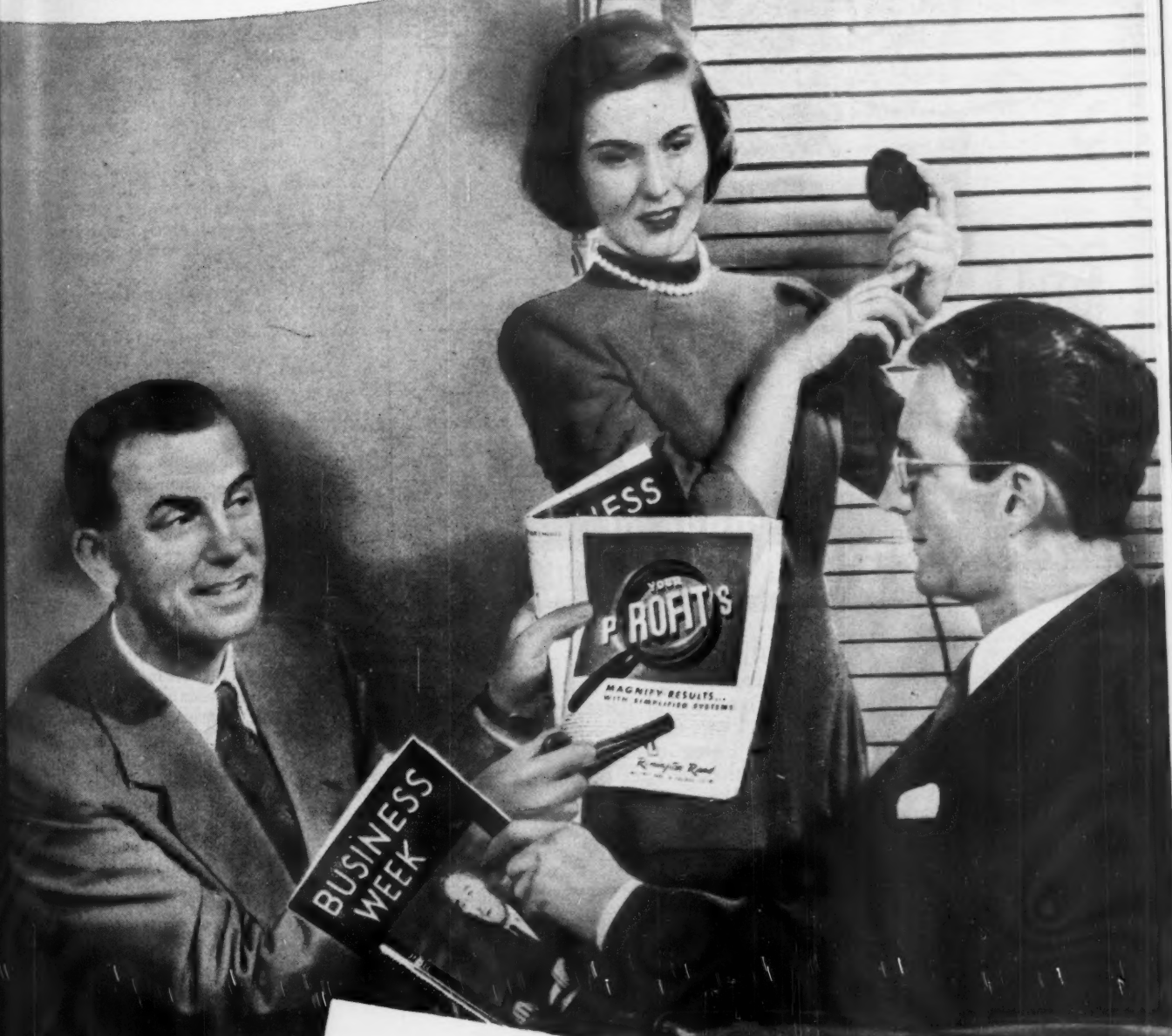
3. FIRST...

In number of *exclusive* accounts in the business goods and services classifications. Total: 229 accounts.

When Business Week has been the leader for 10 years, it can only be explained by the fact that—

**WHEREVER YOU FIND IT, YOU FIND
MANAGEMENT-MAN...WELL INFORMED**

advertiser is a BW advertiser is a BW advertiser



10 Years or more in BW (Office Furnishings & Supplies*)

Addressograph-Multigraph Corp.	Globe-Wernicke Co.
Burroughs Adding Machine Co.	Marchant Calculating Machine Co.
Dick, A. B. Co.	Monroe Calculating Machine Co.
Dictaphone Corp.	Moore Push-Pin Co.
Ditto, Inc.	Remington Rand Inc.
Edison, Thomas A.	Smith, L. C. & Corona Typewriters, Inc.
Elliot Addressing Machine Co.	The Todd Co.
Felt & Tarrant Mfg. Co.	Underwood Corp.

*Publishers' Information Bureau analysis



WASHBURN* EGG BASKETS

made of
KEYSTONE WIRE



**Rubber-Coated Farm Basket
for potato harvesting and
general crop handling**

**The Washburn Company
Rockford, Illinois*



KEYSTONE STEEL & WIRE CO., Peoria 7, Ill.

Rubber coated egg baskets manufactured by the Washburn Company minimize egg breakage . . . cool eggs quicker . . . reduce handling costs . . . and help poultrymen get premium prices.

These especially designed baskets are constructed of dependable, uniform Keystone wire that has proper ductility for easy forming . . . a clean, bright surface for spot welding and rubber adhesion.

The efficiency of Washburn Rubber Coated Baskets is matched by sturdy construction . . . important reasons why Keystone wire is the choice of the manufacturer.

Whatever your wire need . . .
Keystone can normally supply it.

**SPECIAL ANALYSIS WIRE
for all industrial purposes**

most part, can be obtained in six months, depending on the complexity of the job. (Some, like counters, are available immediately.) And there's a noticeable trend toward lower prices for some simpler devices.

• **Fast Rise**—Not too long ago, instruments weren't given much attention in plant planning. They weren't ignored, but they weren't used as much as they could have been to cut costs and control quality in processing. It's different today.

Experts at the Philadelphia fair last week pointed out that practically all industrial processes today hinge on instruments—especially since costs and quality are now prime factors.

Two other trends have helped the growth of instrument use:

(1) The transfer of sensitive processing methods which need intricate controls from laboratory to plant;

(2) The adoption of continuous, rather than batch, processing.

As a result, technicians say that instrument purchases now are more than 10% of capital goods expenditures for new processing installations.

• **Two Types**—The instruments shown at the Fair, sponsored by the Instrument Society of America, were of two broad types: those for precise laboratory studies; and those for process control in mass production.

The 20,000 different kinds of modern instruments can measure torque, speed, time, force, strain, thickness, color, light, resistance, insulation, chemical composition, vibration, sound, balance, vacuum, pressure, flow, volume, nuclear factors. They can count, or they can compare one material with another. And, as controllers, they can do something about what they measure.

• **Youth**—The instrument industry is relatively young; it didn't get a real start until World War I. Until then, the U. S. depended on foreign sources, mainly Germany, for most of its instruments. About 90% of them came in duty-free.

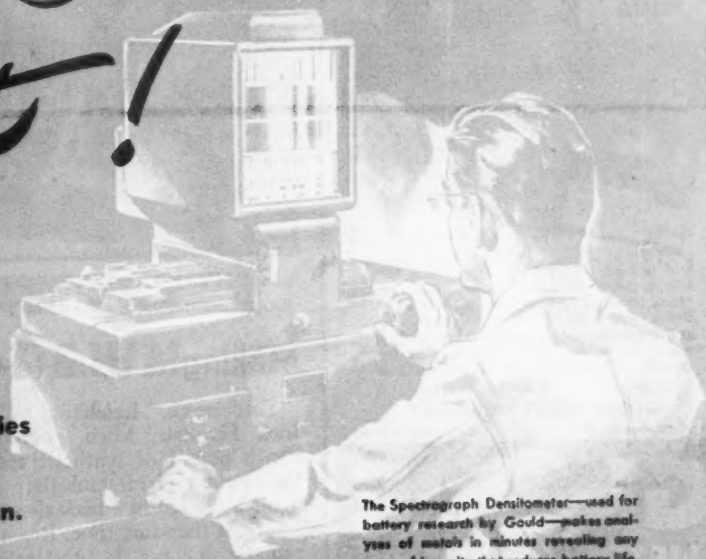
The war brought a change. U. S. production went from \$30-million in 1920 to \$150-million in 1940. As plants became more instrument-conscious, volume rose still further and more companies got in (500 just before World War II; more than 1,200 today).

• **Applications**—The jobs that instruments do today range from processing control in the petroleum, paper, and chemical industries to counting the number of empty beer bottles returned to a brewery. One of their newest applications is to machine tools (BW—Sep. 27 '47, p15).

Professional men, other than scientists and engineers, are getting the benefits of new instrument developments. Example: Lie detectors are now being used by some industrial personnel counselors.

Only **GOULD** Has It!

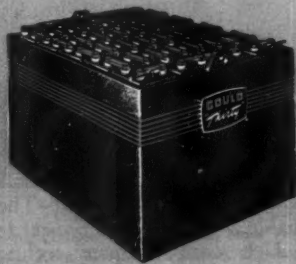
A modern research
laboratory with
pilot manufacturing plant
where advance-design batteries
are constantly created—
and proved before production.



The Spectrograph Densitometer—used for battery research by Gould—makes analysis of metals in minutes revealing any trace of impurity that reduces battery life.

The Spectrograph Densitometer is the most modern tool of analysis. It makes sure that every shipment of raw materials received at Gould's plants conforms to Gould's own exacting specifications before going into production . . . that you get batteries with predictable performance and longer life. Gould has taken the guesswork out of battery-making.

Every component part of every Gould battery is scientifically right. Specify GOULD—FOR FIFTY YEARS THE CHOICE OF ENGINEERS.



The Gould "Thirty"—America's
Finest Industrial Truck Battery!

GOULD

STORAGE BATTERY
CORPORATION

Including the Storage Battery Division
of Philco Corporation

TRENTON 7, NEW JERSEY

Always Use Gould Automobile and Truck Batteries

CUT LOADING COSTS

↓
SEE THIS
BULLETIN



You can load and unload trucks 50% faster with this Globe Loading Lift. Raises loads to truck level, or lowers them to floor level. Saves costly hand lifting breakage. Installs anywhere. Recesses flush with floor when not in use. Air oil or electric hydraulic. Write today for illustrated Bulletin BW2.

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LIFTS and ELEVATORS

FIGHT FIRE WITH PAPER!

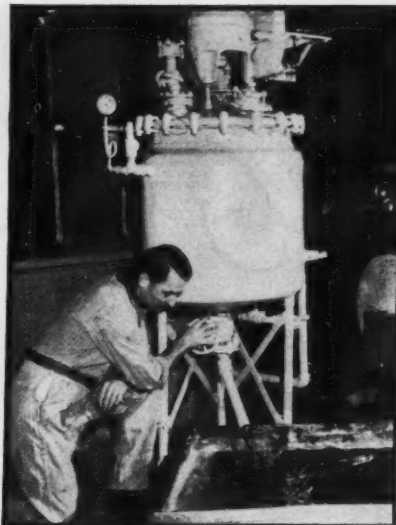


You can't make it flame! Centraline Flame-Proof paper is a barricade against costly fires wherever paper is used—in products, in production, in building. Central engineered papers are replacing metal, cloth, wood and many other materials—improving product design—lowering costs—increasing production.

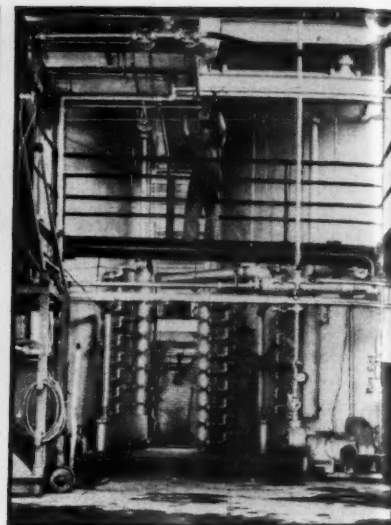
LET CENTRAL ENGINEERS ANALYZE YOUR PROBLEM



CENTRAL PAPER COMPANY INC.
2462 Lakeshore Drive • Muskegon, Michigan
BRANCHES IN LEADING CITIES



TWENTY-ONE YEARS AGO from this garage came Reichhold's resin . . .



LAST WEEK the company opened this \$1-million plant to speed up . . .

Making a Hard-to-Get Chemical

Last week, Reichhold Chemicals, Inc., Ferndale, Mich. poured its billionth pound of synthetic resin—using the original mixing tank (left) from the plant it started in a back-alley garage in 1927. At the same time, Reichhold was proudly showing its latest achievement (right), a new phthalic anhydride plant with a capacity of 24-million lb.

Phthalic anhydride—an important component of synthetic resins—is scarce, and Reichhold needs all the phthalic it can get. In fact it uses 15-million lb. a year, some 10% of the country's annual production. So it will use the new plant's output, plus that of a previously built plant, in its own compounding.

Reichhold will also continue to buy from outside sources.

The expected postwar surplus of phthalic anhydride never materialized. It was to have come from war-built plants that made the stuff for use in smokeless powder and insecticides, as well as in resins. Despite the new capacity, phthalic remains short because a lot of new uses were found for the chemical (BW-Jul.8'44,p83). For example, it is used in lead paints for protecting steel. Such paints now require about 150,000 tons of lead a year; Reichhold hopes eventually to sell phthalic as an alternate material in such coatings.

Enter Titanium

Du Pont offers the metal for commercial trial. Strong in pure state, it promises superior qualities as alloy.

Industry has a new metal to work with. Last week, E. I. du Pont de Nemours & Co. announced that it has started commercial production of ductile titanium.

The Bureau of Mines has been making the metal (BW-Feb.28'48,p58), but only for research. Du Pont is now turning out 100 lb. a day of the pliable, workable stuff at its Newport, Del. plant (run by the pigments department).

• **What It Is**—Titanium is a curious metal, with a curious history. There is more of it in the world than all the

lead, tin, zinc, antimony, copper, nickel, gold, and silver combined. All vegetation and all coal are made up largely of carbon, but the earth's crust and atmosphere contain 23 times as much titanium as carbon. Despite this, titanium has never been exploited as a metal.

Titanium first came to light back in Revolutionary days—in deposits of rutile (a titanium dioxide), and ilmenite (a mineral containing iron, titanium, oxygen).

For years, titanium was the black sheep in the ilmenite flock. It was looked on as an impurity. Many iron-ore deposits were abandoned because they were "contaminated" by the metal.

• **As a Pigment**—Then, when du Pont set out on a project to "purify" the iron ore, company technologists found out something that turned the black sheep into a white lamb: As an oxide, titanium makes a fine pigment (for paints, enamels, linoleum, papers).

In 1931, du Pont began producing

Commercial success of many new and better chemical processes created in recent years called for tubing capable of withstanding temperatures, pressures, and corrosive conditions never faced before—conditions too tough for ordinary tubing materials to cope with. These were tough jobs that called for the superior properties of **STAINLESS STEEL TUBING**.

Dawn of these latest chemical achievements found B&W years ahead with the answer to the new processing problems. For in 1922, it had pierced the first stainless steel tubing in America . . . had continued to keep pace with growing needs by making available the widest variety of stainless tubing obtainable from a single source.

Long years of this kind of foresighted engineering has linked B&W's name to many significant developments in widely divergent fields. Yet for all its 80 years, B&W remains young enough to have new ideas for engineers in all industries—a good reason B&W is the right place to bring today's problems and tomorrow's plans.

**UP BEFORE
THE DAWN**

THE BABCOCK & WILCOX CO.
General Offices: 85 Liberty St., New York 6, N. Y.
Works: Alliance and Barberton, O., Augusta, Ga.

THE BABCOCK & WILCOX TUBE CO.
General Offices: Beaver Falls, Pa. • Plants: Beaver Falls, Pa.; and Alliance, Ohio

**BABCOCK
& WILCOX**

N-55

Water-Tube Boilers, for Stationary Power Plants, for Marine Service . . . Water Cooled Furnaces . . . Superheaters . . . Economizers . . . Air Heaters . . . Pulverized-Coal Equipment . . . Chain-Grate Stokers . . . Oil, Gas, and Multifuel Burners . . . Seamless and Welded Tubes and Pipe . . . Refractories . . . Process Equipment

CLARK



**"A 75 PERCENT
SAVING RESULTED
FROM A WELCOME
'pause that refreshes'"**

Looking upon every materials handling operation as a potential source of pleasant profit is a healthful exercise calculated to reduce costs at the waste-line. Noteworthy proof of its remarkable effectiveness is set forth in the following stirring message:

"A saving of more than 75 percent in the loading and unloading of highway trucks was our reward for installing Clark fork-lift trucks in our bottling plants and warehouses.

"One Clark machine can unload 5760 empty bottles from a highway truck and reload 5760 bottles of 'Coca-Cola' in only 7 minutes—an operation which, by manual methods, required two man-hours. Adoption of the Clark Method came as the result of a careful study. Talk about your 'pause that refreshes!'"

W. T. Wood, Manager
Cleveland Coca-Cola Bottling Co.
Cleveland, Ohio

You, too, can put your business on a simple cost-reducing regimen that will make it "feel a great deal better." The Clark field representative is an excellent man to assist you—and now is the best possible time to enlist his unbiased cooperation. It's a tonic exercise for business to CONSULT CLARK.

CLARK ELECTRIC AND GAS POWERED
FORK TRUCKS
AND INDUSTRIAL TOWING TRACTORS



INDUSTRIAL TRUCK DIV., CLARK EQUIPMENT COMPANY BATTLE CREEK 42, MICH.
REPRESENTATIVES IN PRINCIPAL CITIES THROUGHOUT THE WORLD
AUTHORIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

the oxide for pigments. Result: Some iron ores are being worked today not for the iron but for the once-rejected impurity.

• **Metal's Qualities**—Pure titanium is a low-density, silver-white metal. Engineers say it has a good strength-weight ratio, good corrosion resistance. They mean that, compared with iron, copper, silver, steel, and brass, it is light; for a given job, it takes less titanium to get the same strength. Also, it withstands salt water and chemicals better than most structural metals.

Titanium has been slow in coming into its own for a very good reason: It likes its ores, is hard to separate. Du Pont isn't saying how it's making the metal, but it hasn't any doubt that it's got something good. Here's why:

Unalloyed—the only way it can be had now—titanium compares in strength with 18-8 stainless steel (18% chromium, 8% nickel). How much stronger titanium can be made as an alloy is anybody's guess. Since they already have something comparable to stainless steel as a starter, researchers figure they may develop titanium alloys far superior to any metals now known. Remington Arms Co., a du Pont subsidiary, has its experts working on that now.

• **Supply**—There's no supply problem, so far as ores are concerned. Known deposits of rutile and ilmenite are tremendous in Canada (BW—Sep. 18'48, p128) and the U.S. In this country they're in New York, Florida, Virginia, and North Carolina.

Du Pont is selling titanium now in a porous form called sponge. It will soon be available in ingots. Price of the sponge is \$5 a lb. but that's a pilot-line figure that will be hacked down sharply when production rises. After all, aluminum started at \$16 a lb.; now the base price of ingot is 16¢ (BW—Sep. 18'48, p10).

Meanwhile, du Pont is supplying industrial and university laboratories with small samples of the newly developed metal free of charge.

STATISTICS FOR INDUSTRY

Industrial use of statistics was the subject of intensive study at New York's Columbia University last week. Thirty scientists from nearly every field of manufacture were "students" at a series of lectures by experts on quality control, research techniques, sampling, and ballistics. The object of the five-day course: to get a better tie-in between industry and colleges in applying statistical methods, understanding their limitations, extending their use.

The course, sponsored by the School of Engineering, was over-subscribed by industry. So Columbia will repeat the course—until demand falls off.



HOME-SPRAYED PLASTIC prevents varied objects from tarnishing as . . .

New Uses Boom Coating Sales

How big do you think your product can grow? It's a tricky question. Sometimes when you feel your market's well defined, a completely new demand upsets your plans. Then you're likely to have a sales jackpot—and a production headache—on your hands.

Take the case of Foster & Kester, Inc., a small Philadelphia chemical concern. Six months ago it brought out a plastic spray, Krylon, for a comparatively limited market—the art field. Today the demand has sprawled into so many new channels that the company's small production facilities have been outstripped.

Krylon forms a clear plastic coating on wood, metal, or paper. It stands up under water, acids, and oils; it won't crack, chip, or peel. Just what the chemical base of the plastic is, the company won't say.

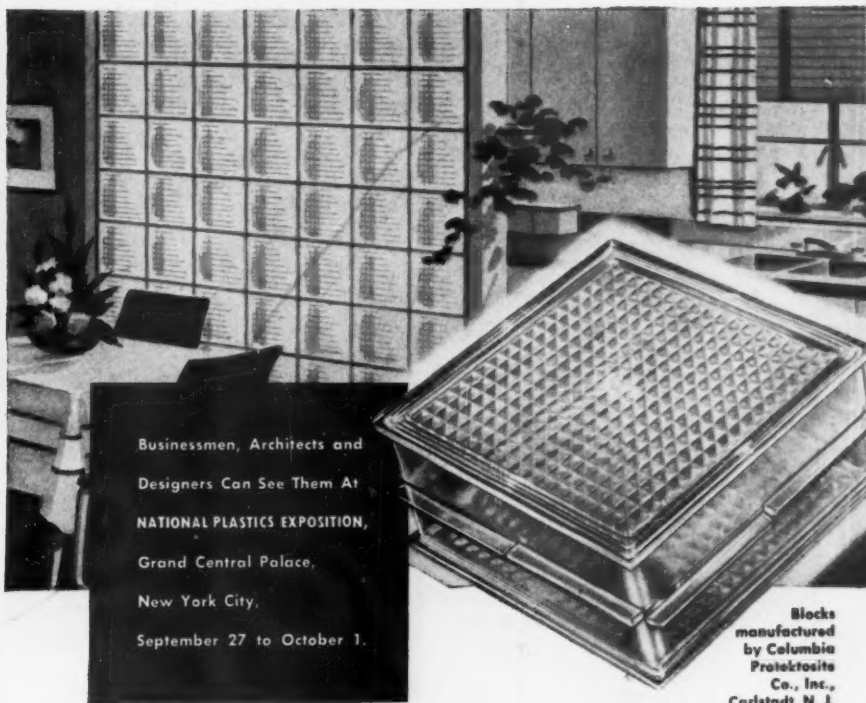
The spray was first sold to be used on blueprints and drawings to give them a protective finish and "dress them up." Sales were satisfactory, but there was one drawback: The product was sold in bulk, so customers had to have their own spraying equipment.

So the company decided to pack the plastic in 12-oz. cans—with a spray attachment, all for \$2.95. That's when sales started to boom.

Customers used the spray in a slew of new applications: (1) on chrome surfaces of automobiles and boats, to stop rust and tarnish; (2) as a rust-preventing grease on saws; (3) as a life-stretcher for file cards and other records that came in for a lot of handling; and (4) to protect silverware, jewelry, and furniture.

A great
new idea
on exhibition

BUILDERS' BLOCKS OF MONSANTO PLASTICS!



Businessmen, Architects and
Designers Can See Them At
NATIONAL PLASTICS EXPOSITION,
Grand Central Palace,
New York City,
September 27 to October 1.

Blocks
manufactured
by Columbia
Protekosite
Co., Inc.,
Carlstadt, N. J.

Plastic blocks for non-load-bearing interior walls that are both practical and decorative. That's the achievement of Columbia Protektosite Co., Inc., with these new interior partition blocks molded of Lustron, Monsanto's polystyrene.

These strong, easily assembled, low-cost, light transmitting blocks make temporary or permanent walls for home and office interiors.

Imaginative designers will find a thousand-and-one *new* uses.

And manufacturers . . . many of them plagued by the metals shortage . . . will see in such new ideas many of the *new* things plastics can do for them.

If you can't attend the show, the coupon will bring you more information about the blocks . . . plus a 20-page illustrated catalog on Monsanto's twelve basic plastics and how they'll fit into your business.



MONSANTO CHEMICAL COMPANY, Plastics Div.
Dept. WBP10, Springfield 2, Mass.

Please send me information on the plastic building blocks ☐; on Monsanto's plastics catalog ☐.

Name Title

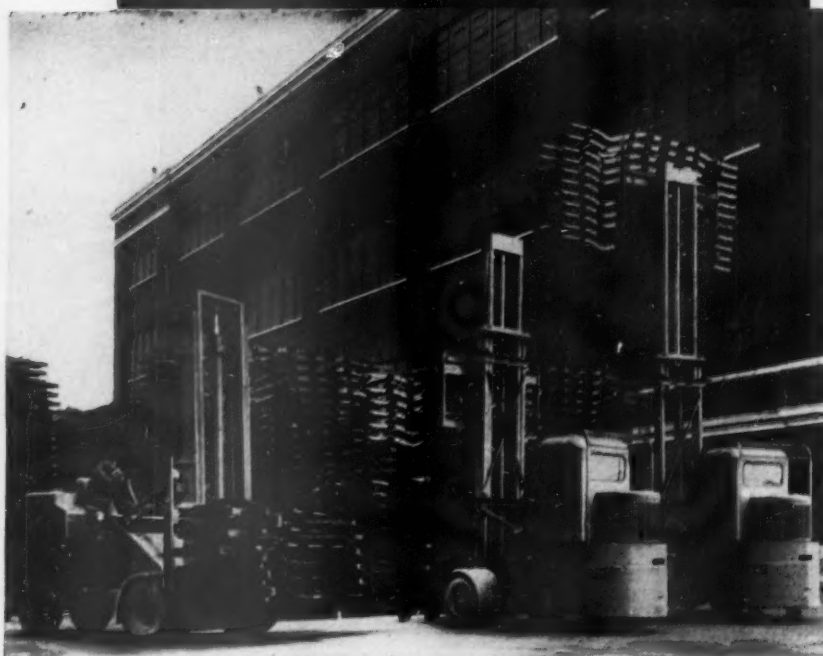
Company

Address

City State

SERVING INDUSTRY . . . WHICH SERVES MANKIND

ROSS HEAVY DUTY LIFT TRUCKS



**chosen by A. O. SMITH CORPORATION,
nationally known manufacturer,
to handle automobile frames**

Cost of handling automobile frames has been drastically reduced since installation of ROSS Lift Trucks at A. O. Smith Corporation, Milwaukee, Wisconsin. Formerly handled singly, one man and a ROSS Lift Truck now handle and stack the bulky frames in unit loads of six or more at a time! And the job is done with far greater safety because the need for cable-riggers on the pile has been eliminated.

Hydraulic steering makes the operator's job easier and pneumatic tires assure all-weather indoor-outdoor operation.

ROSS Lift Trucks can simplify your handling problems and reduce your costs even as they have done for A. O. Smith Corporation. Get all the facts.



THE ROSS CARRIER CO.

300 MILLER STREET, BENTON HARBOR, MICHIGAN, U.S.A.
Direct Factory Branches and Distributors Throughout the World

PRODUCTION BRIEFS

A WAY TO BRAZE MAGNESIUM has been found by Dow Chemical. Its engineers say the process makes it possible to braze the metal by all three commonly used methods—furnace, flux dip, and torch. The big trouble up to now has been caused by magnesium's sensitivity to temperature. Dow isn't telling how it overcomes this.

STUDY OF THE LAWS governing the registration of professional engineers has been made by A. M. Sargent, past president of the American Society of Tool Engineers. You can get a copy for 75¢ from Sargent at 19669 John R. St., Detroit 3.

HOW TO CUT COSTS of construction is the subject of study by a joint committee set up by the American Society of Civil Engineers and the Associated General Contractors of America. The group will recommend: designs to get the most out of mechanized construction; standard contract clauses; fair bidding procedures.

GENERAL ELECTRIC is using a new "tor-ture chamber" to test grease. The device, which looks like a small motor, has a ball bearing packed in grease. The bearing spins at speeds up to 3,600 r.p.m.; a heater warms the grease to the temperature of normal motor operation. In a matter of weeks, the tester gives the grease the workout that it would ordinarily get in months of use in an electric motor's bearings.

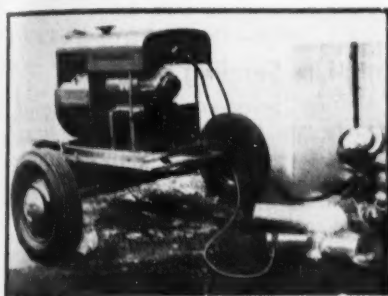
CHEMISTS AT BOTANY MILLS have a new protein product, Botancin P. They think that used in foodstuffs, it may speed the growth of epithelial tissue like skin and hair. It's derived from wool wastes.

STANDARD SPECIFICATIONS and test methods for coal and coke are covered in a booklet published by the American Society for Testing Materials. You can get a copy (for \$2) from A.S.T.M., 1916 Race St., Philadelphia 3.

ANOTHER MODERNIZED PLANT for the manufacture of refractory brick (BW—Sep. 18'48, p. 70) for furnace linings is now at work. The up-to-date fire brick plant was built by LaClede-Christy Clay Products Co. at Warm Springs, Calif.

FOUR THOUSAND PATENTS held by E. I. du Pont de Nemours & Co. are listed for licensing on the patent register of the U. S. Patent Office. The list represents about two-thirds of the patents held by the company. It was compiled from patents granted since Jan. 1, 1933.

NEW PRODUCTS



All-Around Welder

A lightweight, d.c. welder, designed for general use, is in production at General Electric Co.'s Welding Equipment Division. The welder handles a maximum of 250 amp. of welding current, weighs 660 lb., can be easily carted on a pick-up truck.

An air-cooled Wisconsin VF-4 engine drives the welder; it is coupled to the generator by steel-core V-belt drive. You can set the welding current you want on a calibrated dual control before the arc is struck.

The welder has a built-in auxiliary power outlet of 110 v. to operate lights and power tools. If portability is your main requirement, you can get the machine mounted on a two-wheeled, pneumatic-tired trailer. G. E. is at Schenectady 5, N. Y.

• Availability: immediate to two weeks.

Magnetic Card Holder

A magnetic display clip, the Maggie, solves the problem of holding identification or price cards on steel merchandise or on products packed in tin or steel containers. Simply slip the card in the clip; the magnet holds it anywhere on the products.

The clips use Alnico permanent magnets, are strong enough to hold a 5 x 8 in. card; for larger cards, you just add more clips. They'll stick to steel surfaces even where such surfaces are covered with enamel or paper labels. Magnetic Merchandising, Inc., 40 E. 32nd St., New York 16, is the manufacturer.

• Availability: immediate in small quantities.

Airtight Tire Tube

Production of a new leakproof tire tube for military and commercial aircraft is underway at Firestone Tire & Rubber Co.

Firestone makes the tube airtight by treating the inside with a special chemical. This, says the company, checks the normal seepage of air through the wall of the tube.

Because air pressure is held at a near-

constant level, Firestone expects there'll be less wear and damage due to under-inflation. And there'll be fewer delays to pump up soft tires. Firestone's headquarters are in Akron, Ohio.

• Availability: immediate.

Plastics Newcomers

As the plastics industry made ready for its New York show next week, the trade got its first look at two important new materials.

One, a polystyrene composition, is significant from the application standpoint. Called P-S, it is a development of the Chemical Division of Koppers Co., Inc., Pittsburgh 19. It makes possible the use of polystyrene (a clear thermoplastic) in products exposed to fairly high temperatures. It can be used in a wide range of colors; color stability is good. The company says mold shrinkage is low; molding temperatures are about the same as for other polystyrenes.

The new material will withstand boiling water; it's expected to go into the manufacture of such kitchen utensils as knife and fork handles and strainers. It can be molded into radio cabinets that won't warp under the heat of tubes. Storage battery cases are another possible use. Koppers says the material will sell at the same price as conventional polystyrenes.

The second product, a fast-curing thermosetting resin, stirred up interest among production men. Developed by Libbey-Owens-Ford Glass Co.'s Plaskon Division, the resin is called Plaskon Alkyd Molding Compound. Its quick curing properties—which slash processing time from minutes to seconds—are expected to pay off in faster press operation and higher production.

Ordinarily, thermosetting molding resins are held in the mold cavity of the press under heat and pressure from 14 to 15 min. This is to allow time for curing—a chemical reaction which changes the resin into an infusible solid. In the new alkyd, this chemical reaction takes place in a much shorter time—usually about 25 sec.

Chemically, the new resin is an alkyd polymer that is combined into a mineral-filled molding powder. It can be produced in a limited range of dark colors and at molding temperatures from about 275F to 325F. Plaskon engineers say the material has good electrical properties, will withstand temperatures from 300F to 350F without deterioration. It has good resistance to tracking (formation of a carbon path on an insulator which allows leakage of electricity); it stands up well against chemicals and moisture. Main use of

the plastic is expected to be in electrical parts. Libbey-Owens-Ford's address: Nicholas Bldg., Toledo 3, Ohio.

• Availability: Koppers' P-S in limited quantities now; Plaskon's compound soon.

Air Inspector

Anemotherm, a three-way air meter, will give air velocity, air temperature, and static pressure readings at the turn of a knob. Made by Anemostat Corp. of America, 10 E. 39 St., New York 16, the instrument can be used to adjust and test heating, ventilating, and air-conditioning equipment.

The unit weighs 11 lb. A small probe which is designed for insertion in air ducts or pipes is attached to a long flexible cable.

Ranges of the meter: for air velocity, from 10 ft. per min. to 5,000 ft. per min.; temperature, from 30F to 155F; static pressure (in inches of water), from 0.05 to 10 positive, 0.05 to 4 negative. Direct readings are shown on the meter; there's no need for timing or reference to tables or graphs.

• Availability: immediate.

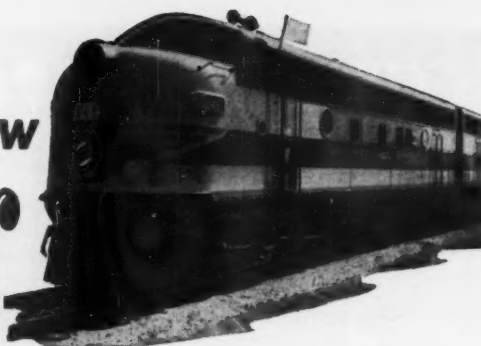


Mechanized Watch Cleaning

You usually think of watch-part cleaning as a tedious, painstaking job. Actually, it can be a completely automatic process, says L. Lasher & Co., Inc. The company's new machine—the Bingham—will put parts through cleaning and drying without any manipulation by the watchmaker.

Parts are placed in a basket-like receptacle attached to the arm of the machine. The machine automatically: (1) dunks the parts in two separate cleaning solutions, washes them with 1,750 up-and-down strokes per min.; (2) spins the parts to remove the cleaning fluid; (3) gives them a rinse; (4)

MORE NEW Power



FOR M. & ST. L. FAST FREIGHT!

This new Diesel locomotive is one of three of identical modern type added to fleets of the Minneapolis & St. Louis Railway already in 1948, increasing its pool of Diesel power to 41 engines.

This locomotive, generating 3,000 horsepower in its two units, is one of the most efficient transportation machines ever built. It pulls long, heavy freight trains at high sustained speeds on heavy-duty tracks over gently rolling prairies of the Midwest. Along with more than a thousand new cars acquired in the last few months, it will help the M. & St. L. maintain its 77-year reputation for



Fast, Dependable Freight Service

The Minneapolis & St. Louis Railway

TRAFFIC OFFICES IN 36 KEY CITIES
LINKED BY TELETYPEWRITER SERVICE

Big time saver for a small office?

The new desk model MailOpener!... trims a thread-like edge off any size envelope—thick or thin—in one motion... gets the morning mail—and the whole office—off to a fast start!... Inexpensive, smartly styled, made to last a lifetime... the PB MailOpener soon pays for itself in saved minutes, is a real economy in any firm!... Write for illustrated folder...today!

MAILOPENER PITNEY-BOWES, Inc.

A PRODUCT OF

PITNEY-BOWES, INC.,
1464 Pacific St., Stamford, Conn.

...Originators of the postage meter...offices in 93 cities.

dries the pieces in a final spinning operation.

The manufacturer's address: 37 Kemble St., Boston.

• Availability: about Oct. 1.

Long-Life Sanding Belts

Abrasive belts—made with a resin bond to give extra durability and heat resistance—are manufactured by Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.

Used in sanding operations on tools, fixtures, and tubing, the belts have aluminum oxide mineral grains coated on a flexible cloth backing with a resin bond. Called Three-M-ite, the belts are made in widths up to 18 in. and in lengths from 60 in. up.

In one test with a manufacturer of plumbing fixtures, the new belts are said to have boosted production on brass castings from 75 pieces per belt to 400.

• Availability: 2 weeks.

Soot Chaser

A chemical compound to remove soot and slag from boiler furnaces is marketed by National Aluminate Corp., 6220 W. 66th Pl., Chicago 38. Nalco SR-150 gets rid of the soot by lowering its ignition temperature to a point (775F) where normal furnace temperature will burn it off. Untreated coal soot burns at about 1,135F.

The compound is free-flowing, can be blown into the furnace with a special feeder. The powdered chemical settles on the fire bed and vaporizes immediately. These vapors penetrate the soot and bring about the ignition.

• Availability: two weeks.

P. S.

General Motors thinks it has found the clock that can take any beating an auto can give it—and still run. It has four major parts, each built as a separate subassembly: (1) the balance wheel; (2) the contact assembly; (3) the coil and driving armature; (4) the reduction gear. The balance wheel is used only to keep an accurate and uniform beat. The armature drives the clock mechanism; its impulses are regulated by an electrical circuit controlled by the balance wheel. There are no mechanical connections. G. M.'s Delco Appliance Division, Rochester, N. Y. maker of the clock, swears it will give the motorist accurate time all the time.

Vinylite plastic writing board will fit in your desk blotter. You can write on it with a pen or pencil, then erase your jottings with a daub of cotton that has been soaked in a remover fluid. It is made by Ruhl Development Co., 241 16th St., Toledo, Ohio.

READERS REPORT:

Aircraft Production Data

Sirs:

In your "Business Outlook" section you indicated a fear that the information contained in the Census Bureau "Facts for Industry" release respecting airplane production endangered national security [BW—Aug. 28 '48, p10].

Please be assured that publication of the airplane production information as contained in the Census report is authorized by the Bureau of Aeronautics of the Navy and the Dept. of the Air Force, this authorization having been indicated in letters to the Census Bureau in April of 1948.

J. C. CAPT

DIRECTOR,
BUREAU OF CENSUS,
WASHINGTON, D. C.

• We never for one moment doubted that the aircraft figures had been approved for publication.

But the trend to much heavier planes, revealed in the figures, is a very impressive one. No editor could look at it without remembering how such facts were shielded by censorship only a few years back.

Thus, the point to our item was simply this: Are the defense authorities flatly warning Russia about what kinds of planes we are building?

On the Birth of T-H Law

Sirs:

After reading your Trend captioned: "What You Think of the T-H Law" [BW—Aug. 28 '48, p88], I thought you would be interested in reading what I wrote to Congressmen Beall and Fallon:

"Read with interest a newspaper story captioned 'Fallon, Beall Back Taft Act; Answer Green, AFL Head, Who Urged Labor Beat Them.'"

"I note Mr. Green is quoted as describing the Taft-Hartley act as 'reprehensible, indefensible, and antilabor.' . . . If the Taft-Hartley act is unfair to labor and working hardships on what is known as labor—although I hate the word, preferring employer and employee—then you and I would want it corrected because laws should be conceived, worded, and administered in the spirit of fundamental Americanism.

"If we had never had the Wagner act, there would never have been any Taft-Hartley act. If the leaders of organized labor had not abused what they considered to be their rights under the Wagner act, we would not have had a Taft-Hartley act. Many labor leaders were not only unfair to the public but became tyrants as far as their own mem-

FAMOUS QUOTES

HISTORICALLY SPEAKING

**"GET THERE FUSTEST
WITH THE MOSTEST..."***



GENERALLY SPEAKING

**"the container is part
of the product"**

. . . and your products also "get there" and in prime condition when shipped in General Engineered Shipping Containers.

Not only do General Boxes provide "all-around" protection but they are also compact and of lightweight construction. No weight or space is wasted . . . they are designed to the specific product, as "part of the product."

Our Designing and Testing Laboratories at Chicago and Brooklyn are staffed by packaging engineers of long experience. They will be glad to help you design a more economical and more efficient container for your product.

Write today for complete information . . . also for your free copy of "The General Box."

**Statement of Nathan Bedford Forrest (1821-1877), great Confederate cavalry leader. Volunteered as private in 1861; made a major-general in 1863.*



General
Wirebound
Crate



General
Nailed Box



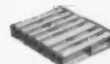
General Cleated
Corrugated
Container



General
All-Bound Box



General
Corrugated
Box



General
Lift
Pallet

GENERAL BOX COMPANY . . . engineered shipping containers

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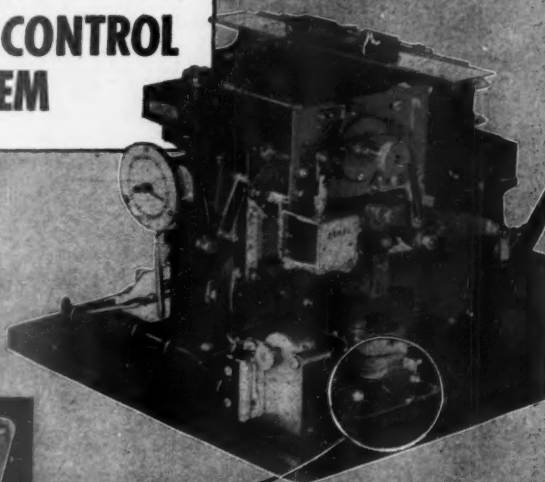
Detroit, East St. Louis, Kansas City, Louisville, Milwaukee

New Orleans, Sheboygan, Winchendon, Natchez.

Continental Box Company, Inc.:

Houston, Dallas.

On time . . .
all the time
with a
LORD
VIBRATION CONTROL
SYSTEM



Time recorders have to deliver thousands of indelible punches every day . . . they must give dependable, accurate service.

The Cincinnati Time Recorder Company uses a Lord Vibration Control System to isolate a delicate time clock from shock created by the rugged punching mechanism. Four Lord Plate Form Mountings are carefully engineered into the basic design, resulting in greater accuracy, less maintenance and longer equipment life.

A Lord Vibration Control System can increase sales by giving your product better performance and longer life. Submit your problem to an experienced Lord engineer. There is no obligation.

Write for Bulletin 900 today. It describes the complete line of Lord products and services.

LORD MANUFACTURING CO.
ERIE, PENNA.
Canadian Representative:
Railway & Power Engineering Corp., Ltd.



LORD Vibration Control Systems

bership was concerned after the passage of the Wagner act, which was conceived in my opinion in political iniquity. . . .

"I believe in the fundamental basic principles of organized labor. I am against the rackets of certain labor leaders and against the unscrupulous employer."

HOWARD W. JACKSON

RIALL JACKSON CO.,
BALTIMORE, MD.

That Old Saxon

Sirs:

The picture of the old Saxon and the old road [BW—Sep. 11 '48, p76] brought back old memories . . .

It is indeed a Saxon, exact model year difficult to establish as this car was made virtually unchanged outwardly for several years. However, it is the Saxon 6, as shown by the "Rain Vision" (split) windshield and the beaded fenders—and the location of the license plate front mounting.

The Saxon 4 was about the size of the present Willys Jeep except that it was "standard tread"—thus making it only about 50% longer than it was wide. It had "molded fenders," the parent of modern fender design and construction, and a one-piece windshield folding down over the hood—again like the present civilian and military Jeep.

The Saxon 6 in your picture was most likely built between 1916 and 1920, for around the latter year sometime it was superseded by the Saxon Duplex, a four-cylinder, more powerful car of approximately the same size or a bit larger.

The original Saxons, brain children of the industry's famous Hugh Chalmers, were good cars in their day.

C. O. SPILLMAN, JR.

DETROIT, MICH.

Regional Sales Lag

Sirs:

I could almost kiss the fellow who wrote your Marketing article about regional shifts in retail sales [BW—Aug. 4 '48, p66], as it proves what I've been trying to tell my various salesmanagers: Business IS off in Virginia and the Carolinas in relation to the rest of the U. S.

Will you please send me ten copies of the article?

I've been a subscriber of BUSINESS WEEK for a number of years and will take this opportunity to say I like it. It is boiled down, factual.

J. S. LONGDON

MANUFACTURERS' REPRESENTATIVE,
GREENSBORO, N. C.

Phosphorus Chemicals

Sirs:

With International Mineral & Chemical Corp. being the largest phosphate

rock producer, I was surprised to see no reference to that company in your story on phosphate [BW—Sep. 4 '48, p50] and even more so not to find their name listed in the box on page 54 of phosphate rock producers. Of course, we are grateful for the extremely generous treatment previously given International [BW—Mar. 27 '48, p24].

JOSEPH HICKS

THE JOSEPH W. HICKS ORGANIZATION
CHICAGO, ILL.

• Our story was concerned with phosphorus chemicals made from phosphate rock, and the industrial uses of those chemicals. Consequently, no effort was made to include phosphate rock producers as such in the article, although some of the phosphate chemical makers who were mentioned also process phosphate rock.

The boxed table was mislabeled. The title should have read: "Phosphate Chemical Producers," not "Phosphate Rock Processors." The footnotes, explaining what each listed company does, underline this fact.

Pan Am's Puerto Rican Service

Sirs:

Your interesting article entitled "Small Airlines Make Money" [BW—Sep. 4 '48, p84] contained references to Pan American Airways' tourist service of \$75 from New York to Puerto Rico which were unintentionally misleading. First, a typographical error. Our regular one-way fare is \$133, not \$138. Furthermore, we give a special 33%-off round-trip excursion fare of \$180 on our regular service.

Trans-Caribbean is welcome to its optimism [that Pan Am's \$75 tourist service will not affect Trans-Caribbean Airways], but its four reasons, as described in the article, look a little different in the light of facts. (1) "Pan Am hasn't the native ticket-selling organization. . . ." We cover Puerto Rico thoroughly with 18 Puerto Rican travel agents, eight in San Juan, three in Santurce and one each in seven other Puerto Rican towns. We do not appoint people other than full-time travel agents to sell our tickets, partly because of government and International Air Transport Assn. restrictions. However, aside from these restrictions, Pan American feels that Clipper passengers, particularly those that have not traveled extensively before, should have available to them the expert travel guidance which established travel agents are in business to provide. In New York, we have 17 travel agents, scattered over the Bronx, Brooklyn, and Manhattan, specializing in serving Spanish-speaking travelers. (2) By eliminating galley and coat rack, we are putting 63 seats in the DC-4's instead of 52. However, the seats are the same com-

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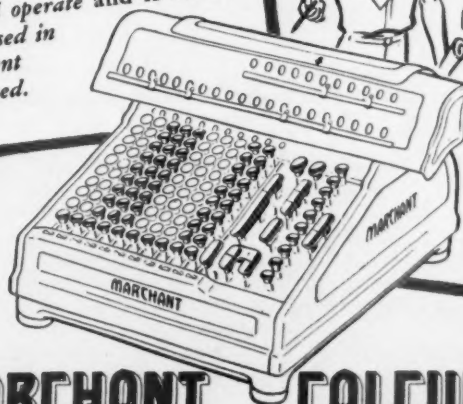
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fortable ones as on the regular service. (3) On the overnight flight down, the tourist passengers will be served a midnight snack, and a continental breakfast just before arriving in San Juan. On the way back, a box lunch will be served. Free, of course. (4) We plan to carry two attendants as always, not one.

As to the comments in the article on the luxury of the accommodations, our trips will be quality service in every respect, except for the hot meals. Luxury has many components. One of these, we feel, is regular, dependable, scheduled service, which will be available via Pan American. For its standard-fare traffic, incidentally, PAA soon will use Constellation-type Clippers, cutting the flight time to about seven hours from the present nine-hour trip.

JOHN CREEDY

PAN AMERICAN AIRWAYS,
NEW YORK, N. Y.

Two-Tone Plating

Sirs:

During the past year I have read BUSINESS WEEK with much interest and feel that I have profited therefrom. The articles appear well written and accurate. However, I wish to take exception to a point in the article on "Two-Tone Plating" [BW—Aug. 7 '48, p. 34].

You say that the casting first gets "a copper bath to harden it, then a nickel bath to protect it against corrosion."

No hardening of the die casting results from giving it a "copper bath." The die castings is placed in copper plating baths in order to deposit on it a coating of copper, which increases the resistance to corrosion and also improves appearance.

Subsequently, it is placed in a nickel bath to deposit a coating of nickel over the copper coating. It is this coating of nickel which materially increases the resistance of the die casting to corrosion. The nickel bath might be termed an accessory to the act.

LEONARD E. WEEG

NATIONAL LOCK CO.,
ROCKFORD, ILL.

Busses Made in Tennessee

Sirs:

Your excellent and comprehensive article on the automotive industry [BW—Aug. 21 '48, p. 26] is of great general interest.

I note, however, that your map and listing of automotive plants [pages 34, 35] omits Nashville Corp., an AVCO unit which has been manufacturing busses for city transit systems for the past year.

ROBERT CASSELL

TENNESSEE STATE PLANNING COMMISSION,
NASHVILLE, TENN.

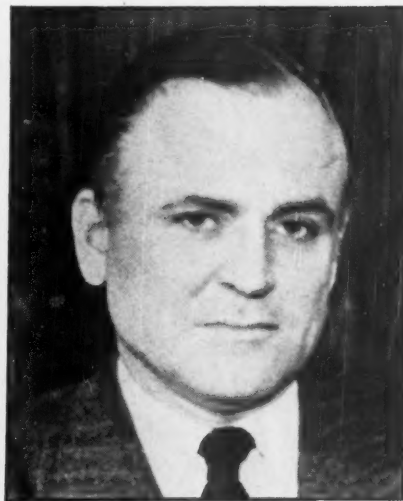
FINANCE



PRESIDENT Kenneth G. Donald



VICE-PRESIDENT F. R. Kohnstamm



SECRETARY O. T. Hess

New Bosses Taking Over Jack & Heintz

Latest management switch puts struggling war baby into hands of management engineers. They'll trim it to economical size.

There was another switch in the management of Cleveland's much-publicized Jack & Heintz Precision Industries last week. Byron C. Foy, former Chrysler executive, stepped out as president and chairman of the board. Into his place went Kenneth G. Donald, vice-president of Cleveland management engineers, Robert Heller & Associates.

• **Sad But Simple**—The story behind the change is sad but simple. For two and a half years, Foy and his associates have wrestled with the problems of converting a spectacular war baby to a steady peacetime income-producer.

They have had enough. They hope that Donald and his two top assistants, Vice-President F. R. Kohnstamm and Secretary O. T. Hess (pictures, above), will be able to give Jahco a fresh start.

• **Two Factors**—Jack & Heintz built a national reputation during the war on two things:

(1) Its ability to turn out high-quality work for the government in unbelievable quantity;

(2) The unorthodox incentives that former president Bill Jack made use of so that his workers (he always called them "associates") would keep going at top speed.

When the war ended, Jahco's government business dried up. Early in 1946, Jack sold the controlling interest to a group of eastern investors headed by Foy (BW—Jun. 1 '46, p18). The new management hoped to build up a prosperous peacetime business in items like

bearings and fractional horsepower motors.

• **Incompatibility**—The original deal provided that Jack and his partner, Ralph Heintz, should stay on to head the company's operating and engineering departments. But Jack, who is nothing if not an individualist, soon got into a series of violent and semi-public rows with the new proprietors. Eventually he sold his stock and left for Escondido, Calif.

Ralph Heintz only recently had his contract extended as chief of the 300-man Jahco engineering staff. But he has permission to do his research and work at his own laboratory in California.

• **Promise and Trouble**—When Foy's group took over the company, the outlook wasn't bad. Jahco had several promising products in various stages of development. The main problems, so it seemed, were to arrange financing and find customers. Just before the 1946 bull market died, the company floated a public issue of stock. That took care of the financial worries for awhile.

The new management took an opti-



Once upon a time, president Bill Jack (left) of Jack & Heintz and Byron C. Foy, chairman of the board, sat down to discuss the future—which turned out to be not so good



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mistic view and organized Jahco's five plants for volume operation. Then the troubles began.

• **Shortage and Surplus**—Materials shortages held back production. Prospective customers returned to their prewar sources of supply. In competitive line, Jahco found that it did not have a rounded list of products. One of its most promising items—small motors—suddenly became a drug on the market toward the end of 1947.

All this time the heavy overhead—scaled to big-time operations—was chewing into earnings. The result was a steady procession of losses. Although the company managed to turn a small profit in 1947, its cumulative profit and loss account since Foy took over still showed a \$3-million deficit.

• **Heller Takes Over**—So, as the year ended Foy and his board took their troubles to the Heller people. At first, the management engineering firm backed off. Finally it agreed to let Kenneth Donald take a whack at the problem. For some months, Donald has been acting as Jahco's general manager, getting the measure of the job.

Cleveland businessmen consider Donald's move into the president's chair a good sign. They think that neither he nor Heller would take on anything that was plainly a losing proposition.

• **Financially Solid**—As a matter of fact, the company is still in pretty fair financial shape. At the end of 1947, about \$9-million of its \$14.5-million resources were current assets. This covered current liabilities about three-to-one. Working capital added up to over \$6.4-million. And cash and receivables alone totaled more current liabilities.

No new financing is in prospect. And that is just as well, from the company's standpoint. Stockholders—many of them Jahco employees—have seen the value of the common drop from about \$18 a share at the peak to a current price of \$2.50.

Most of the bizarre incentives that Jack used to pep up his old "associates" are forgotten now. There are no prepaid trips to Florida or fantastic bonuses. But the company still goes in heavily for more conventional employee benefits.

• **Pruning**—Now that he is top man, Donald is trimming Jahco down to what he considers economical operating size. He sees it as a medium-sized company producing aircraft products, small motors, ball bearings, open-type refrigerator condensers, and magnetos.

One of Jahco's plants is up for sale now. At the same time the company is negotiating with War Assets Administration to buy two it has been leasing.

• **More Engineering**—At the same time that he is knocking the gingerbread off the rest of the company structure, Donald is building up the commercial-engineering and research staff. Its job is to

YESTERDAY



... and

Today

Remember the old open-top "double-deckers" that honked their way down New York's Fifth Avenue? Can you recall the "brownstones" and the lofts that gave way to the breathtaking grandeur of modern skyscrapers like world-famous Rockefeller Center?

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Westinghouse development, added new ease and comfort to elevator travel. Westinghouse inductor landing made elevator travel safer.

Then came Selectomatic®, offered only by Westinghouse, to lift multi-car operation to a peak of efficiency still unmatched. And now—Westinghouse has introduced the first high-quality, lower-priced electric stairway to open up new sales opportunities to retail stores.

These and many other Westinghouse developments have led elevator progress. That's why today, the name Westinghouse means the *finest* and *most advanced* in modern elevators and electric stairways.

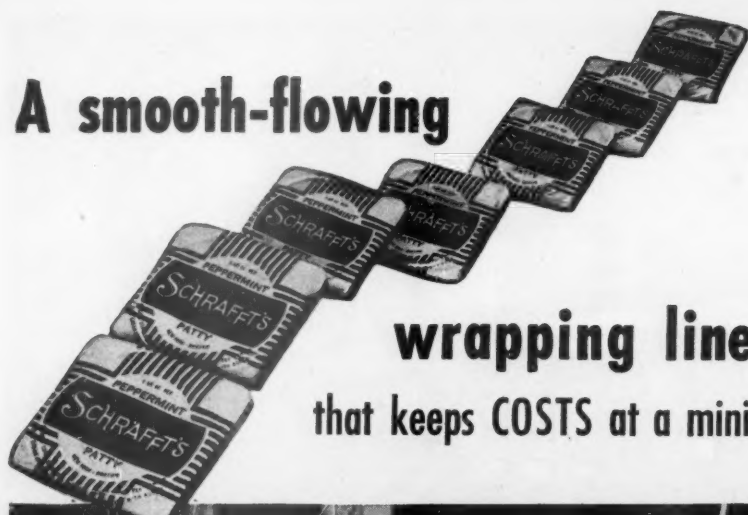
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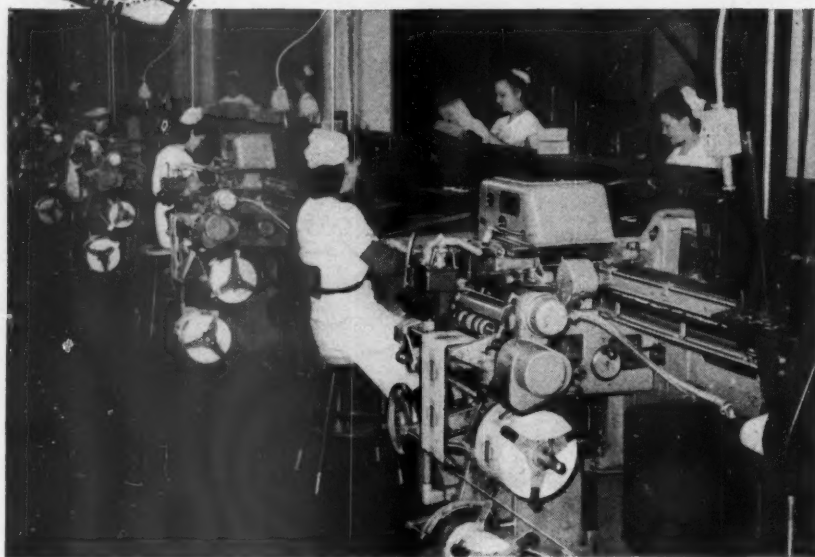
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add to the company's products—not completely new products, but new items in fields where Jahco already has a foothold. Donald's aim is to build up well-rounded lines in a few fields and push them hard.

Jahco engineers also are looking into several new products that might open up profitable lines some day. The company has a novel hydraulic device for starting Diesel engines. A number of consumer products, designed and engineered by Jahco, are under test in the laboratory.

• **Bill Jack's Plans**—Meanwhile, out in Escondido, Calif., Bill Jack last week came out of retirement and announced plans for a new aircraft parts factory. He was purposely vague about what he will make, but says that he has a sheaf of Army contracts.

As the Jack Aviation Corp., he plans to build a factory employing 2,500 on one shift and flush it with a payroll of \$15-million a year. To the people of Escondido (pop. 7,500) that spells a 100% increase in their income.

• **Local Cooperation**—Jack wants local people, as a token of cooperation, to advance \$30,000 for a 40-acre site. They'll get it back in two years, he promises with 2% interest.

There are, says Jack, 1,500 former associates poised in their cars in Cleveland awaiting his signal. He plans to build 400 houses for them.



New Lear President

Lear, Inc., New York manufacturer of electrical equipment, got a new president last week. He's Richard Mock, executive vice-president since 1947. Mock succeeds William P. Lear, president since the founding of the company almost 20 years ago. The company said that the move will enable Lear to give full attention to his responsibilities as chairman of the board and director of research and development.

Airline Mergers?

Many rumors circulate about pending deals. Capital Airlines figures in most of them; president is willing.

Wall Street's rumor-mongers are passing the time these days exchanging yarns about pending mergers of airlines.

• **Gossip Center**—Pivot-point of most of the stories is Capital Airlines, Inc.—a short-haul carrier serving Washington, D. C., New York, Pennsylvania, West Virginia, Ohio, Michigan, Illinois, Minnesota, and the Southeast. Until its recent name change, Capital was Pennsylvania-Central Airlines Corp.

These stories get their plausibility from an admission by J. H. Carmichael, president of Capital, that his line has "discussed the possibility of a consolidation with a number of companies." Although Carmichael denied that any conclusions had been reached, he said that some sort of merger "might well prove to be the solution of the financial difficulties of our company and other similar concerns."

Here are some of the tie-ups that the Street hears may be in the making:

CAPITAL AND BRANIFF. Strongly supported by "interests close to Pittsburgh's Mellons," Capital is said to be exploring actively the possibility of a merger with Braniff Airways, Inc., the ranking north-south operator in the Midwest. (Carmichael has specifically denied any formal negotiations with Braniff.)

CAPITAL AND NATIONAL. This deal is supposed to be sought by "important Capital Airlines interests," including "some of its prominent debenture holders." National Air Lines mainly serves the Eastern Seaboard between New York and Key West, and on to Havana and New Orleans.

CAPITAL AND DELTA. This version has it that what Capital really wants is a merger with Delta Air Lines, Inc. Delta operates from Chicago to Charleston, S. C., Miami, New Orleans, and also into Fort Worth.

• **Variants**—By no means all the merger rumors involve Capital Airlines. Some of the other yarns circulating on the Street allege:

That Delta and National want to merge with each other rather than with Capital; they're supposed not to like Capital's financial position.

That Pan American Airways hankers to absorb National's services into its system.

That Colonial Airlines, Inc., sent merger proposals to National some weeks ago. Colonial serves New York,

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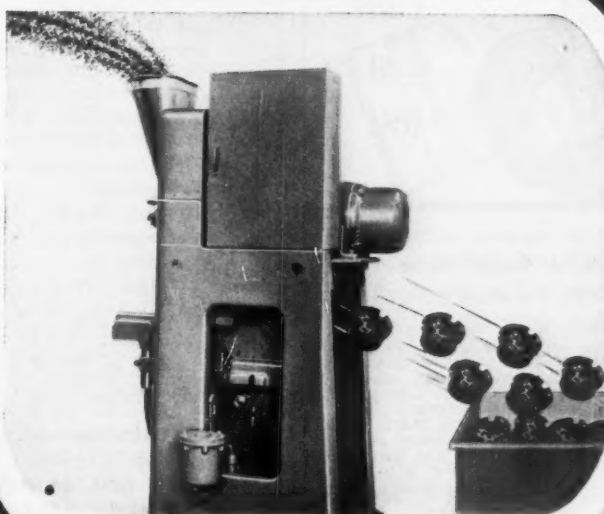
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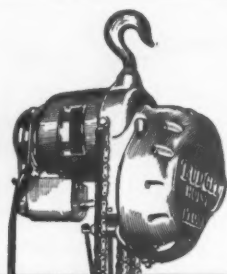


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Some basis is visible for this last story. President Sigmund Janas of Colonial has said publicly that he would welcome a chance to buy National. And although G. T. Baker, president of National, denied any knowledge of such a project, an important group of National stockholders is supposed to be in a receptive frame of mind. Reason: dissatisfaction with management policies, particularly troubles resulting from the long-unsettled pilot's strike.

• **Obstacles**—Despite all the talk, merger plans in the airline field have mostly been abortive. The CAB, for example, turned down a deal between American Airlines, Inc., and Mid-Continent Airlines, Inc., a small midwestern north-

south line. And deterioration of Capital's finances caused abandonment of a contemplated merger with Northeast Airlines, Inc.

Two basic obstacles stand in the way of almost any merger proposal:

(1) The individualistic nature of the industry leaders; most are economic frontier-builders with dominating personalities.

(2) The high values that managements have been setting lately on their route certificates; these persist despite the fact the certificates were free in the first place and that substantial losses have been chalked up on many of the routes lately.

The certificate-valuation factor alone is said to have blocked several recent undercover merger discussions.

The Country's 20 Largest Retailers

Few businessmen have seen their sales volume soar faster since V-J Day than the retail merchandisers. The spurt doesn't seem to have ended yet—dollarwise, at least. Most people in the trade are still confident that retail sales as a whole will hit another historic peak in 1948 (BW—Sep. 18'48, p. 86).

• **Unequal Benefits**—Not all the various parts of the trade have received equal benefits from consumers' postwar buying spree. This is easy to see in the tabulation below of the nation's 20 retailers with the largest sales.

The table shows, for example,

that the leading retailers dealing in food products have reaped by far the greatest harvest of sales increases to date. Next in line have been the department stores and the mail-order businesses. Far smaller gains have been enjoyed by the so-called variety stores.

• **New Rankings**—This postwar performance has brought many shifts in company rankings. Here are some typical cases: S. S. Kresge's sales in 1939 put it in eighth place in the trade; by last year it had dropped back to 15th place. Allied Stores, meanwhile, jumped from 14th largest to eighth in size.

Company	1947		1939		% Gain In Sales
	Rank	Sales	Rank	Sales	
Great Atlantic & Pacific Tea*	1	\$2,545,583,840	1	\$990,358,339	157.4%
Sears, Roebuck†	2	1,981,535,749	2	617,414,266	220.9
Montgomery Ward†	3	1,158,674,514	3	474,882,032	144.0
Safeway Stores	4	1,037,796,659	4	385,882,083	168.9
J. C. Penney	5	775,872,591	6	282,133,934	175.0
Kroger Co.	6	754,282,085	7	243,356,605	209.9
F. W. Woolworth	7	593,359,194	5	318,839,664	86.1
Allied Stores†	8	392,199,076	14	103,243,425	279.9
American Stores	9	388,613,836	10	114,824,010	238.4
May Department Stores†	10	358,013,576	12	103,905,198	244.6
First National Stores#	11	315,915,554	9	124,222,956	154.3
R. H. Macy†	12	304,952,090	16	84,973,550	258.9
Federated Dept. Stores†	13	304,720,671	11	105,908,984	187.7
Gimbel Bros.†	14	301,246,089	15	92,231,119	226.6
S. S. Kresge	15	270,585,779	8	153,911,145	75.8
W. T. Grant†	16	228,636,024	13	103,761,686	120.3
National Tea	17	217,915,297	19	56,824,450	283.8
Marshall Field	18	211,402,847	18	84,029,380	151.6
Colonial Stores	19	159,509,376	20	40,079,757	298.0
S. H. Kress	20	155,359,900	17	84,851,373	83.1

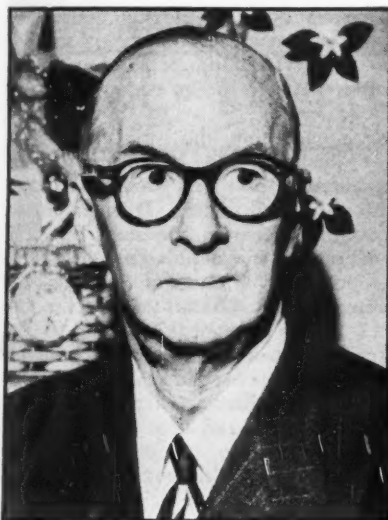
*—Years ended in February, 1940, and 1948. †—Years ended in January, 1940, and 1948. #—Years ended in March, 1940, and 1948.

Big Little Bank

Sunset, La., institution—in a town of 750—has \$4-million deposits. Policy of selling loans for "better living" pays off.

"The biggest little bank in the world"—that's what the Bank of Sunset & Trust Co. (Sunset, La.) likes to call itself.

• **Investments in Living**—Primarily, the Bank of Sunset prefers investments that are alive and walking. Next week it will have a good chance to see its latest batch do just that, for some 8,000 students will start trooping onto the sprawling campus of Louisiana State University in Baton Rouge. Among them, a few will hail from the country around Sunset. And most Sunset scholars—those who aren't G.I.'s—will be thanking the hometown bank for their chance at a college education. Nearly all of Sunset's college-educated citizens got the money for their schooling by borrowing—without security—from the Bank of Sunset & Trust Co.



After Customers Again

Donald Nelson is back in the merchandising business. Once No. 2 man at Sears, Roebuck and Co., wartime boss of U. S. industrial production, he has been named executive vice-president of Mission Pak, big California shipper of fruits and nuts. Back before the war Nelson quit his job as chairman of the executive committee of Sears to become director of purchases for the old National Defense Advisory Council. In the last big war-agency reorganization, Nelson emerged as chairman of the War Production Board. Then he became president of the Society of Independent Motion Picture Producers, a post he recently resigned.

In a town of 750, the Bank of Sunset lends without security for almost any sound purpose—and it has had practically no losses. Its doors stayed opened in the bank debacle of 1933.

• **Beginnings**—It all started back in 1906. The bank's founders were a group of cotton planters who were tired of traveling to Opelousas, La., to bring back sacks of silver dollars every payday. Silver was the only tender that farmers and laborers would take in those days.

In its first year of operation, the bank reported deposits of \$33,000. By 1942, these had grown an even \$800,000 to a total of \$833,000. At the end of the last fiscal year, deposits were \$4-million.

• **Three-way Program**—To explain its flourishing state, the bank points to this program.

- (1) It follows a liberal credit policy.
- (2) It sells credit the way an appliance salesman sells vacuum cleaners.
- (3) It actively aids farmers and businessmen to prosper.

(4) It will go all-out to help its customers to an education, or to anything else that means "better living."

• **Good Risks**—Executive vice-president R. J. Castille figures that lending to cover the costs of a college education is a prime risk. The one string attached to such loans is that the student-borrower must take out life insurance to cover the debt. The bank feels that the only thing that might cause a college debtor to default on a schooling loan is death. To date this theory has held up 100%.

The bank thinks so well of its education program that it not only lends students money without security; it presents every youngster on his 21st birthday with a \$100 credit, for which he puts up no collateral.

Or if you're just a citizen of the town, and want to buy a refrigerator, the bank is ready to advance the cash. The borrower is going into debt to improve his standard of living.

From another angle, credit is easy at Sunset. Castille hates to lower the boom on defaulters. If a Sunsetter can't pay on time, he just explains that he's out of a job or that his farm machinery broke down. Chances are he'll get another loan. He is never hounded.

• **Neighbors' Banks**—These loan policies aren't as blue sky as they seem at first glance. In a small town, the banker knows everybody. If a farmer wants money, the officers can judge pretty nicely how sound he is. If they think he'll pay, he gets the money.

As for the youngsters, the bank knows their families. If Susie or Pete come of loan-paying parents, their credit is good.

• **Selling Job**—Besides giving painless credit, the Bank of Sunset hunts out the customer to find out whether he is in need of a loan; it doesn't wait

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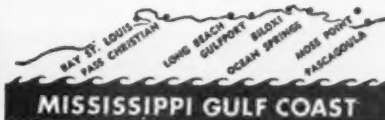


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for the customer to come to the bank. (The reason why most banks don't peddle their money, Castille believes, is that they are too proud. To him, banking is a credit-selling operation; he likes to use the selling methods of a sales manager in a competitive field.)

So, just as likely as not, a ranking officer of the Bank of Sunset may drop into a customer's farmhouse kitchen. Over a friendly cup of coffee, he may suggest that the farmer might use an electric refrigerator since his place is wired. The bank will be glad to make a loan.

Castille reasons that potential borrowers are scared away by the awesome atmosphere of a bank—or maybe they don't realize how easy Bank of Sunset credit is. By suggesting things to buy with borrowed money, the bank keeps its funds out. And Sunset merchants profit from its suggestions.

Tactics like this have pared government lending in St. Landry Parish county to the bone. The Bank of Sunset hogs most of the loans. St. Landry people find it pleasanter to deal with the biggest little bank in the world.

• **Community Builder**—Because the Bank of Sunset had a big hand in St. Landry Parish affairs, the county looks very different today from the way it looked in 1906. Then, St. Landry was a one-crop county. When cotton was good, everybody prospered; but when cotton went bang, the community suffered.

For one thing, the bank encourages diversified planting. Its officers go out to talk to associations, group meetings, or to individual farmers. It lends money for farm machinery and seeds, for soil conservation and improvement.

Last year, the Bank of Sunset's customers sold 3,000 cars of sweet potatoes to the tune of \$3-million. They grew 6,000 bales of cotton that brought \$1,200,000. They sold 5,000 head of cattle for another quarter million dollars. Ten thousand hogs were sold for \$200,000. Corn, chickens, potatoes, hay, and cabbage accounted for about \$100,000.

• **Personnel**—The bank's personnel is as unorthodox as its operation. The president of the Bank of Sunset isn't a banker. He's a cotton planter. And he has never sat at his desk in the bank. He is Frank Dimmick, Iowa farm boy who moved to Sunset when he was eight years old. At one time or another, Dimmick has been president of every farm organization in sight, including the American Cotton Growers Assn. He has served, too, as president of the Louisiana Bankers Assn.—but is quick to say that no bank association head ever knew less about banking.

The bank's operating system was worked out, and is mainly carried on, by Castille and five other officers.

Ford's Surplus Rises \$48.8-Million in Year

The privately held Ford Motor Co. doesn't issue income statements. So the only clew businessmen get to its earnings is the surplus shown in the annual report it files with the Massachusetts State Tax Commissioner.

This week, Ford filed for 1947. It revealed a \$48,857,004 gain in surplus during the year, plus a rise of \$9,445,972 in reserves.

• **10-Year High**—The surplus hit \$732,019,550 last Dec. 31—highest in the past decade. The total was \$683,162,546 at the end of 1946.

But the rise in the surplus doesn't necessarily tell the whole story of earnings. If any dividends were paid out, you would have to add their total to the gain in surplus to get the profit figure.

• **Asset Picture**—Ford's quick-asset position at the end of 1947 is indicated at \$639,550,174. Adding \$386,183,312, represented by machinery, real estate, and production equipment, brings total assets to \$1,025,733,486—highest in the company's history.

Against this, current liabilities were \$256,201,785 at the end of last year.

FINANCE BRIEFS

THE U. S. TREASURY did its first financing this week at its new interest rate of 1½% for one-year money—up ¼% (BW—Aug. 14'48, p10). The Treasury "rolled over" two issues of maturing certificates, exchanging them for \$6.9-billion of new certificates.

PACIFIC TEL. & TEL. financing this week ran counter to the upward trend of interest rates. It sold \$75-million of 35-year debentures to a bidding syndicate headed by Halsey, Stuart & Co. at a net interest cost of 3.12% a year. Last March, Pacific Tel & Tel sold a \$75-million 30-year issue at a net interest cost of 3.142%.

DOW CHEMICAL CO. plans to offer 100,000 shares of its common stock to employees soon. Officers and directors aren't included. Payroll deductions will permit buyers to spread payments over 12 months.

CARRIER CORP. has borrowed \$7.5-million from Metropolitan Life Insurance Co. The 3½% note is due in 1963. The funds will: (1) retire the purchase-money mortgage on the Syracuse plant Carrier bought from WAA; (2) retire previous bank loans; and (3) add to working capital.

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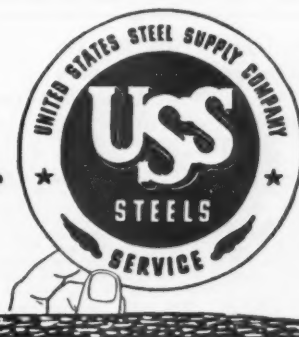


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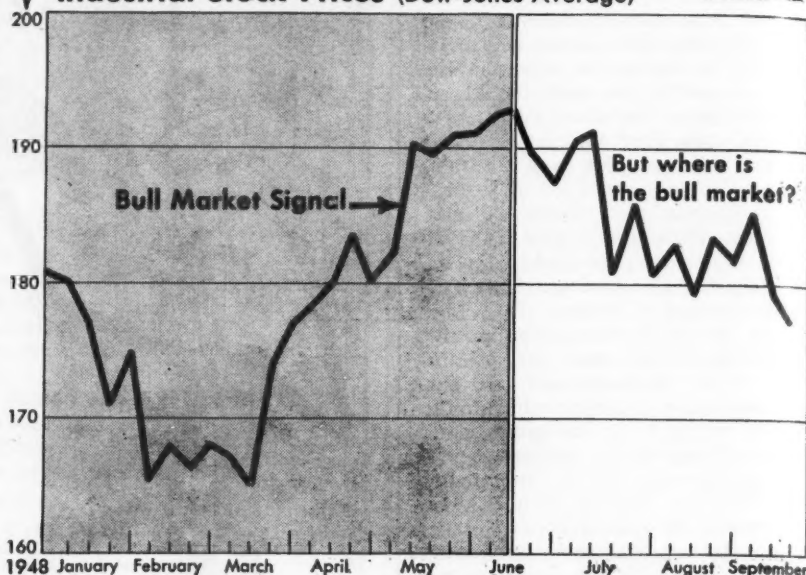
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THE MARKETS

Industrial Stock Prices (Dow-Jones Average)

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The Bull Market Blues

Last spring's breakthrough has fizzled—and not entirely because of the international situation, either. It's partly because Wall Street figures the domestic boom can't last forever.

It is obvious now that 1948 is going to be a banner year for corporate earnings and profits. But you would never think so from the way the stock market has been acting. Since mid-June, the averages have been tracing out a pattern that looks a lot more bearish than bullish (chart).

• **New Dive**—Last Monday the market took another one of those erratic dives that seem characteristic these days. The industrials spilled 2.69. They wound up at 177.37, the lowest point since last May, when the market gave what everybody thought was the signal for a new bull market. The rails lost 1.39 on

Monday and came within a quarter point of a new low.

By itself, this wouldn't count as a bad break. But it isn't the sort of thing that fits into a picture of a healthy bull market.

• **Four Months**—It has been four full months now since the market broke out of its old trading range. That is plenty of time for all the technical adjustments that anyone can imagine. Wall Street's traders are beginning to feel a little bitter about the rosy predictions that the Dow Theorists made at the time of the breakthrough. They suspect that the chart readers have done them wrong.

Apologists among the bulls blame everything on the foreign situation. They say that the bad news from Berlin and Palestine has been holding stock prices down.

• **War Scares?**—But that isn't the whole story. The market's sudden tumbles in the past four months have not necessarily coincided with foreign news. And for that matter, it's hard to say whether the basic situation is worse now than it was last May when the averages bounced up so happily—there was the same war scare then too.

The market may be watching international developments, of course; but

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	152.6	155.4	157.7	145.8
Railroad	47.7	48.8	49.4	41.1
Utility ..	70.2	70.8	70.8	74.0
Bonds				
Industrial	97.4	97.8	97.7	102.7
Railroad	87.0	86.8	86.3	86.5
Utility ..	94.3	94.4	95.2	102.3

Data: Standard & Poor's Corp.

it also is looking over its shoulder at the domestic picture. And it doesn't like some of the things it sees.

• **Caution**—Wall Street isn't exactly betting that the boom is about to fall apart. But nobody can persuade it, either, that today's earnings and dividends are permanent. The ordinary trader figures that one way or another there is going to be a readjustment. And he doesn't want to be loaded up with stocks bought at fancy prices when it finally comes.

You will find a lot of traders worrying about consumer buying power these days. Many of them think that the business boom is running on borrowed time; and they are watching for the first signs of trouble. News that men's clothing is backing up on the racks, or that cotton textiles are faltering can hit the market just as hard as something with a Moscow or Berlin dateline.

• **Another Drag**—The slow but steady rise in interest rates is another thing that has been a drag on the market.

Such a rise puts bond prices under pressure. And that doesn't help stocks to get ahead. Moreover, it makes the market nervous to see the government monetary authorities tinkering with the control machinery. Traders remember 1937 and 1920 when tighter credit policies touched off the break that ended the boom.

A Republican victory in November might give the market a little lift. But rising stock prices at that time won't necessarily follow because the market should have discounted a change in administration completely by now.

• **A Long Wait**—In any case, it will be four more months before the Republicans can take over the government. And then it will take time for business to feel the effects of what is expected to be a friendlier atmosphere. All told, it probably will be the better part of a year before any important new policies make themselves felt. And that looks like a long time to the stock market in its present mood.

Wall Street's Oil Boom Ends

Oil stocks are no longer the darlings of the market.

Early this year, when other stocks were floundering uncertainly, the oils had a bull market all their own. Now they are demonstrating the old adage that what goes up must come down.

Last week, Standard & Poor's weekly oil stock price index stood almost 14% under its 1948 top. That is more than twice the drop registered by the over-all industrial average. And the individual losses

in many cases have been far more severe than that (table below).

The drop in oils doesn't surprise the more conservative Wall Streeters. Months ago they began to say that the petroleum stocks were getting out of line (BW—Jun. 26 '48, p99).

But, earningswise, the industry still is in excellent shape. Sales continue to rise. Full 1948 profits could well run as much as 50% over 1947. Dividends this year may be 25% higher.

Stock	Previous Bull Market High			1947 Low	1948 High	Recent Price
	1929	1937	1946			
Amerada Petroleum.....	\$40.00	\$62.75	\$91.50	\$73.00	\$121.00	\$94.00
Atlantic Refining.....	77.87	37.00	51.50	31.12	50.12	37.50
Barnsdall Oil.....	49.12	35.25	31.00	20.75	44.62	38.00
Gulf Oil.....	104.50	63.50	78.00	57.50	81.00	65.00
Humble Oil.....		43.50	75.25	55.25	88.00	75.00
Lion Oil.....	19.50	17.00	24.37	19.62	55.50	40.00
Ohio Oil.....	40.00	22.87	29.62	21.00	43.00	31.50
Phillips Petroleum.....	47.00	64.00	73.25	50.50	77.50	60.75
Plymouth.....	37.00	29.87	29.75	21.00	70.75	45.00
Pure Oil.....	30.75	24.87	28.87	21.25	42.00	31.63
Richfield Oil.....		10.75	20.37	23.75	49.00	30.00
Seaboard Oil.....	69.37	54.12	39.50	23.00	59.50	41.00
Shell Union Oil.....	31.75	34.75	43.75	24.50	46.75	36.38
Sinclair Oil.....	45.00	17.87	20.75	14.00	32.25	23.88
Skelly Oil.....	46.50	60.62	85.50	65.00	160.00	109.25
Socony-Vacuum Oil.....	21.00	23.25	18.25	13.75	23.00	17.88
Standard Oil (Calif.).....	81.87	50.00	59.62	50.75	73.00	62.00
Standard Oil (Ind.).....	68.75	50.00	49.75	37.25	53.00	42.50
Standard Oil (N. J.).....	84.87	76.00	78.75	63.00	92.87	73.13
Sun Oil.....	65.37	91.00	65.37	51.00	70.50	65.63
Sunray Oil.....	12.00	5.00	14.00	7.87	15.62	12.00
Superior Oil.....		55.00	160.00	101.50	235.00	180.00
Texas Co.....	71.87	65.12	68.25	53.75	67.00	55.88
Texas Pacific Land Trust.....	32.37	15.37	26.50	15.75	48.50	40.13
Tidewater Associated Oil.....	23.50	21.75	24.12	18.00	32.50	26.75
Union Oil.....	57.00	28.50	29.00	20.00	38.87	31.13

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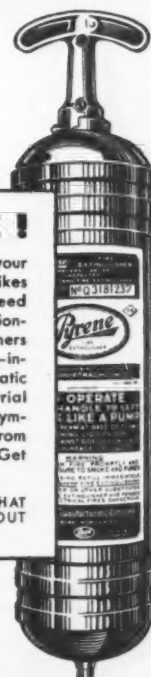
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A \$3.5-Billion Problem: Industrial Safety

National conference will try to bring down accident rate, which last year put 2,059,000 workers off jobs for at least a day.

The figures were grim. They showed disabling work injuries costing management and workers something like \$3.5-billion last year.

The figures weren't out long before President Truman summoned a National Conference on Industrial Safety. Next week representatives of industry, labor, and the public will sit down together in Washington for three days to work on the problem.

• **Two Conferences**—General secretary of next week's conference will be Secretary of Labor Maurice J. Tobin. Vincent P. Ahearn of the National Sand & Gravel Assn. will be executive director. Conferees will include industrial safety experts from both management and labor, and spokesmen for private and governmental agencies which deal with safety and education.

The first meeting is expected to set up an organization to make preliminary studies of ways to cut down work injuries. A more comprehensive conference is scheduled for next March—when recommendations will be submitted to the White House.

The problem is serious. Last year, 2,059,000 workers suffered disabling work injuries (those which cause the loss of at least one full day's work after the injury.) Of these, 17,000 were killed

and 91,800 were permanently disabled.

• **Man-Hours Lost**—Time lost through work injuries in 1947 totaled 44.7-million man-days. That's equal to a year's full-time employment for about 150,000 workers. If you include the cumulative loss of man-days due to deaths and physical impairment, the time lost soars to an estimated 233.7-million man-days—a year's employment of 780,000 workers.

Sharp rises in disabling work injuries came in construction (15%) mining and quarrying (11%), public-utility operations, and trade. Fatalities increased by 15% in mining and quarrying, and 9% in construction.

• **Progress**—On the brighter side, some scattered signs of progress in on-the-job safety techniques showed up in 1947. The total of 2,059,000 workers disabled was just about 1% higher than the total for 1946. In view of the expansion in most industrial activities and in employment, the small increase looks like an improvement. Progress in safety methods is indicated; in particular, in manufacturing industries—which showed a decline in work-injury totals last year despite a sharp rise in employment.

The National Conference on Industrial Safety is expected to make a de-

tailed study of successful safety programs now in effect. The object is to find—and to publicize—methods which can be applied generally in industry.

• **Forstmann Record**—This week, the spotlight nationally was on a Passaic, N. J., plant with a record that's certain to get the attention of the conference. A labor-management safety program at the Forstmann Woolen Co. was honored (1) on a national radio broadcast and (2) in a university case study.

The broadcast was Dwight Cooke's "Cross-Section, U. S. A.," a Columbia Broadcasting Co. forum program. Occasion of an on-the-spot program at the Forstmann mill was a remarkable safety record—4½-million man-hours worked without an accident.

• **"Unusually Low"**—The case study is the first of a series to be published by Rutgers University, through its new Institute of Management & Labor Relations. It credits union-management co-operation for an "unusually low level" of accidents at the Forstmann mill.

This mill had a frequency rate of 1.46 disabling injuries per million man-hours worked in 1947. The National Safety Council estimated the rate for the woolen textile industry as a whole at 14.16 for 1946.

• **Cooperation Works**—Forstmann's union-management safety program was set up in June, 1945. Prior to that, management alone had run it. After the union got an active part in a joint



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safety program, the accident frequency rate dropped from 8.66 in 1944 to 4.55 (1945), 2.36 (1946), and 1.46 (last year).

A joint safety council administers the program at the top level. Members consist of one supervisory employee (for management) and one non-office-holding member of the union each from worsted spinning, wool spinning, weaving, and finishing mills, and from the engineering department. The manager of the company's Safety and Health Office is permanent chairman. The council meets once a month. The Textile Workers' educational director is a frequent visitor. Experts often are invited to sit in on discussions of problems in their fields.

• **Policeman, Teacher**—The Joint Safety Council is in charge of educational work on safety and health. It sees to the instal-

lation of new safety and health devices and techniques. And it handles cases of rule violations. It also organizes, oversees, and coordinates the work of departmental joint safety committees. These are made up of two foremen, two non-office-holding union members, and a permanent chairman appointed by the company.

As a part of the educational program, each Forstmann worker has a handbook, "For Your Own Safety," covering his or her job. Each handbook is prepared for the department to which the worker is assigned; safety rules of particular importance for the worker's individual job are shown by checkmarks. Supervisors and other management representatives in the mills get bulletins regularly on accidents—and how they could have been prevented.

Forecasting Strike Pattern

April through July looks like the critical period in 1949. Dispute notices that precede negotiations give a gage of what's ahead, although peak in notices may come before peak in strikes.

If there's a major flareup of strikes next year, it probably will come between Apr. 1 and July 31. That four-month period now looks like the critical part of 1949, as far as plant shutdowns and supply stoppages are concerned. It's when most important labor contracts will expire, or can be reopened on wages.

• **Fall and Winter Lull**—Industry's third-round wage problems are almost entirely cleared up. For most employers, labor troubles are over—for six months or so. But considerable thought is being given to the developing postwar strike pattern and the 1949 outlook.

Employers in Cleveland were warned last week that 1949 "will witness more labor trouble in terms of strikes and lost man-hours than any year since 1946." The prophet of gloom: Frank Rising, Detroit, general manager of the Automotive & Aviation Parts Manufacturers, Inc.—an association composed of 400 manufacturing concerns in 30 states.

Rising told The Associated Industries of Cleveland that labor trouble lies ahead no matter what political party wins the November election. It will be caused, he predicted, by efforts of unions to regain lost prestige.

• **Mapping the Future**—Other predictions aren't that pessimistic. Just the same, management has to take the strike pattern into consideration in mapping future production schedules.

The postwar trend shows that the yearly strike peaks have come as follows: 1945, September; 1946, July; 1947, April; 1948, July. The low-mark for work stoppages in 1945, 1946, and 1947 was set each year in December.

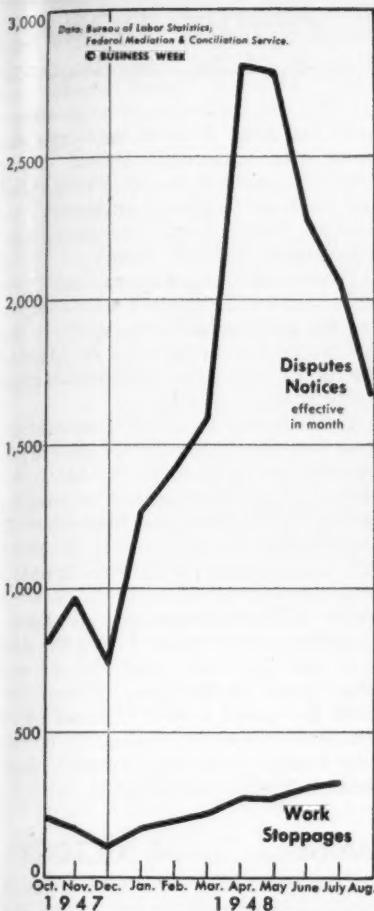
In the past, the pattern of strikes in earlier years has been important as a guide to when labor troubles might be expected in the future. Now, something new has been added under the Taft-Hartley law: dispute notices. So alert management-men have been watching their pattern, too.

• **Procedure**—Under the T-H rules, employers and unions seeking to change a labor contract must give 30-day notice to the Federal Mediation & Conciliation Service. From these notices it's possible, for the first time, to get a fairly reasonable idea of the months in which most contracts are renewed or amended.

Dispute-notice figures for the past 12 months indicate that most of the important contract changes were negotiated in April, May, June, and July, 1948. The strike potential would seem to have been greatest in April—2,832 dispute notices were filed in March, with April effective dates. The number was only slightly lower in May (2,800) and continued heavy, though no heavier, for two more months.

Most of the contracts drawn this year either are one-year agreements, or are reopenable on wages after one year; so you can expect a duplication of the 1948 pattern next year.

• **Time Lag**—The pattern of actual strikes did not follow the pattern of potential strikes this year—as reflected by dispute notices (chart). For instance, most strikes (335) occurred in July, which ranked fourth in the dispute-notice list (with 2,074). That could be due to a post-T-H law cautiousness by unions, very much in evidence in 1948



STRIKES AND DISPUTE NOTICES are related, but not parallel

(BW—Aug. 14 '48, p84). They were willing to negotiate beyond strike deadlines.

But even with the lag, a bulge in dispute notices may forecast a rise in strikes a few months afterward.

• **On the Docket**—In 1949, the United Electrical Workers (C.I.O.) could set off major strikes with fourth-round wage demands against Westinghouse Electric Corp. on Apr. 1. U. E.'s two-year agreement with General Electric also is subject to reopening next year, at about the same time. But U. E. is now expected to sit tight in 1949, until less-vulnerable unions set a wage course.

The first big deadline may be June 15, in the automotive industry. That's when the United Auto Workers (C.I.O.) has an expiration date at Chrysler, and a wage reopening at Hudson. Chrysler was struck this year, so U. A. W. may concentrate its fourth-round fight on Ford Motor Co. The Ford contract runs out July 15. General Motors' contract with U. A. W. provides for a 3¢ raise next June, regardless of where its wages stand under the cost-of-living formula—which continues in effect until June, 1950.

• **Coal and Steel**—John L. Lewis' next bout with mine owners has a deadline

Tuckered out by noon . . .



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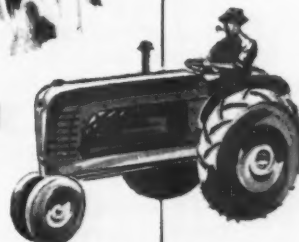
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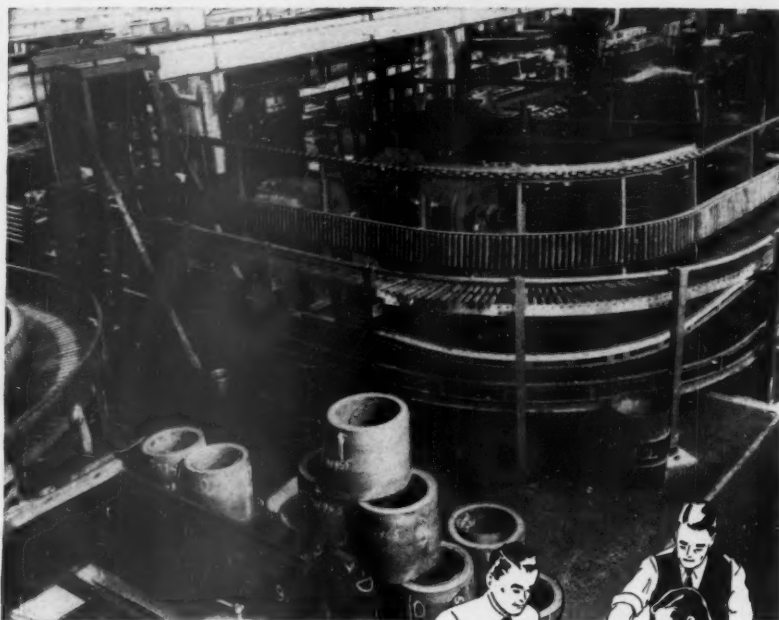
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of June 30, 1949; bituminous coal contracts expire on that date.

One big industry—steel—has a crisis date beyond the April-July period. Philip Murray's United Steelworkers (C.I.O.) can strike for a wage adjustment on Aug. 1, 1949, although the union's contract with United States Steel runs until April 30, 1950. (Coal and steel are "national emergency" industries. Hence, a strike would be subjected to 80-day T-H delay.)

Other major negotiations, not likely to be pattern-setting, will take place in the flat glass industry in April; at the Aluminum Co. of America in May; in the rubber industry in June; and in meat packinghouses in August.

• **Total**—In all, 19,725 dispute notices were filed during the first 12 months of the T-H law. This total does not accurately indicate the number of existing contracts, the Federal Mediation & Conciliation Service is quick to point out, for three reasons: (1) Many employers and unions failed to file the required notice; (2) many contracts were not reopened or did not expire during the past year; and (3) many contracts do not come under the filing requirement, because the plants involved do not affect interstate commerce. Estimates of the total number of existing contracts range between 50,000 and 100,000.

MAINE: A LABOR VICTORY?

Labor politicians who back Truman aren't disheartened by the strong Republican showing in Maine last week. Instead, they chalk the election results up as a significant victory. Here's why:

(1) Margaret Chase Smith, Republican nominee who won a U. S. Senate seat by a record-breaking majority, was backed by labor. Unions put her on a "friendly" list despite her stand in favor of the Taft-Hartley act.

(2) Two laws drafted to curb union activities—both bitterly opposed by labor—were trounced in a referendum.

Maine labor leaders do not claim that the union vote did anything more than swell the victory vote for Mrs. Smith. But they do claim that the union campaign against the labor bills turned possible enactment into overwhelming rejection.

One of these was the Tabb act, designed to protect "the right of members and non-members of labor organizations to the opportunity to work"; it was beaten by about 8-to-1. It would have outlawed closed-shop contracts but sanctioned union-shop agreements.

The other, the Barlow bill, was intended to "protect the right to work and to prohibit secondary boycotts, sympathetic strikes, and jurisdictional strikes"; it was beaten by about 2½-to-1. It would have banned both the closed shop and union shop.

LABOR BRIEFS

JURISDICTIONAL PROBLEMS took up much of the time at A.F.L.'s International Brotherhood of Electrical Workers' 23rd convention last week. I.B.E.W. authorized its president, Dan Tracy, to withdraw the union from A.F.L.'s Building Trades Dept., if necessary, to protect the union's interests. This would be a blow to the new construction industry jurisdictional disputes program—to which I.B.E.W. is a party (BW—Sep. 4'48, p100).

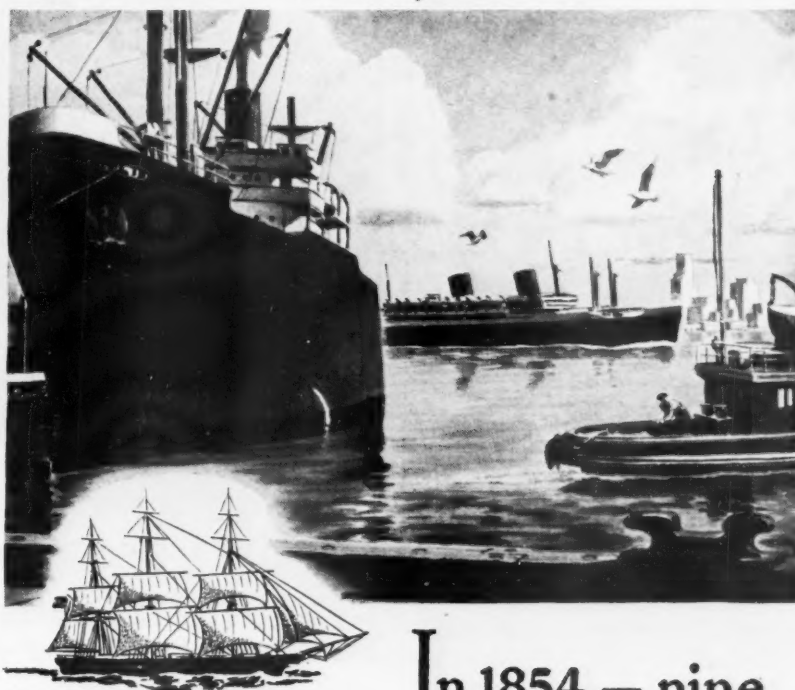
ST. JOSEPH LEAD CO. mines in Missouri reopened this week after a 10-week strike by C.I.O.'s Mine, Mill & Smelter Workers. The union voted to end the walkout when a back-to-work group organized an independent Ozark Lead Workers Assn.; M.M.S.W., vulnerable because officers haven't signed non-Communist oaths, sent its 4,000 miners back to jobs to protect its jurisdiction.

MOST WEST COAST DOCKS were strike-bound this week in a hiring-hall showdown fight (BW—Sep. 11'48, p108). But Army cargoes began to move, with independent companies (not members of the struck Waterfront Employers Assn.) using union labor to do the job. The Army dropped plans to employ its own longshoremen: The announcement that it would hire "strikebreakers" caused a flurry of protest in the Truman political camp. Harry Bridges' International Longshoremen's & Warehousemen's Union (C.I.O.) is letting members handle Army cargoes at prestrike wage rates. Hiring halls are still being used.

WORKERS WHO QUIT en masse are on strike even if no strike has been called by their union. A Knoxville federal judge so ruled last week in enjoining a stoppage at the Oak Ridge (Tenn.) atomic energy center. A.F.L. electrical workers left jobs with the Roane-Anderson Co. because it let a contract to a firm hiring non-union electricians. NLRB held that the stoppage was a secondary boycott; the union said the men quit individually and voluntarily. The judge disagreed with the union, ordered the strike terminated.

NLRB'S BACKLOG of cases has been cut 18% from an April peak of 14,467. The board reported this week that 11,800 cases were pending Aug. 1, 7% less than on July 1. The cut was due to a 28% drop in new cases (3,746) and to decisions in a record-breaking 416 cases. Union-shop elections held topped requests for elections for the first time this year. Unions won 97% of 2,795 union-shop polls. They won 77% of collective bargaining elections in July.

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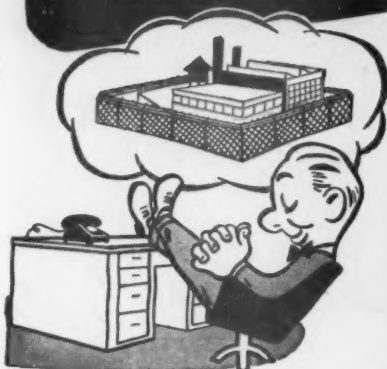
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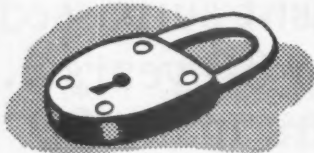
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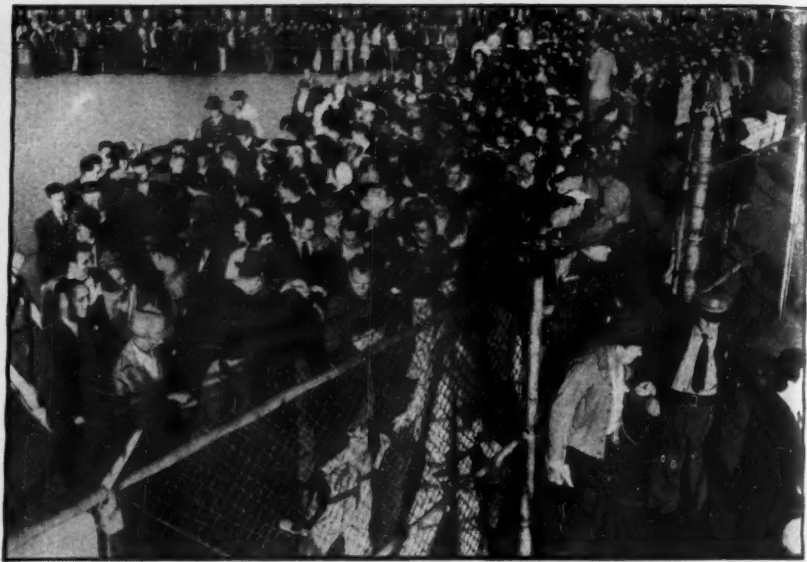
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BOEING STRIKE ENDS and I.A.M. members go back to work without contract

Union Loses Seniority Fight

One of most restrictive clauses in any labor-management contract is dead as result of six-month strike lost by machinists' union. Seattle plant now faces jurisdictional fight problem.

Production was climbing back to normal this week at the sprawling Boeing Airplane Co. plant in Seattle. A six-month strike was over. Boeing members of the independent International Assn. of Machinists ended it by voting, 4,247 to 385, to return to work without a contract. The union had surrendered on the one big issue in the walkout—a union demand that Boeing continue to observe a complex seniority clause.

• **A 15-Month Barrier**—This clause was the real block during 15 months of futile bargaining. As a result of the deadlock, 14,800 hourly-paid aircraft workers quit the Boeing Seattle plant last April (BW—May 8 '48, p. 112). And until the union vote last week, neither side had budged much from original positions in the seniority clause row.

I.A.M.'s strike finally caved in because:

(1) A swelling stream of workers was passing through picket lines.

(2) Local and international union costs had topped \$2-million—exclusive of about \$23-million in lost wages; and

(3) The union's jurisdiction at Boeing was threatened by organizing efforts of Dave Beck's powerful West Coast division of the Teamsters Union (A.F.L.).

• **The Clause**—In most labor agreements, a seniority clause is essentially a guarantee that the last man hired must be the first one fired. The Boeing-I.A.M. clause went far beyond that.

Boeing called it a 4,200-word "strait-jacket" for management—ten printed pages of rules covering job assignments, promotions, transfers, layoffs, rehires, and discharges.

Here's how it came about: Before the war, Boeing's seniority clause was loosely drawn. It was adequate to cover ordinary situations, but no more than that. The Seattle plant grew by leaps and bounds during defense-production and war periods; employer and union found they couldn't settle new seniority questions just by referring to the contract. Arbitration and negotiation were necessary. As each decision and agreement was later written into the contract, the seniority clause became more and more complex—and wordy.

• **After the War**—New problems arose when the company began trimming and stabilizing its work force after the war. Boeing soon found it was firmly tied to plant-wide seniority; it had no voice in picking the employees it could keep, or the ones it could assign to highly-skilled jobs. Seniority number, not ability, was the determining factor. The contract clause guaranteed senior employees a 30-day trial in any job throughout the plant, as long as it was held by a worker with less seniority. Efficiency suffered as workers with ability were "bumped" down the shop list into jobs which didn't utilize their full skill.

Moreover, after the war the Boeing plant shifted from a single war product

—the B-29 Superfortress—to a half dozen new military and civilian planes. The company found that the seniority clause wouldn't let it choose workers to handle new production problems and jobs. Workers with top seniority could—and did—demand first crack at them.

Example: Boeing at one time needed specialists, such as sheet metal mechanics, modification mechanics, and production planners, for a hurry-up project. It couldn't shift, or employ, qualified workers; it had to let plant workers with sufficient seniority take turns in 30-day tryouts for the jobs.

• **Efficiency Slumps**—Plant efficiency slumped. Boeing blamed the shackling seniority provisions. Early in 1947 it asked I.A.M. to negotiate a new clause. When talks got under way, both sides made minor concessions—then took firm stands. Work continued under an extension of the old contract.

Early this year, management and union were still negotiating on the seniority issue—and were still far apart. A showdown came in April, when I.A.M. made new pay demands in line with third-round settlements. Boeing rejected the new demands, and the strike followed.

• **T-H Law Invoked**—Boeing contended that the union failed to serve a 60-day strike notice, required under the Taft-Hartley law. Hence, it said, the walk-out wasn't a legal stoppage. It went to court for an injunction. A federal court upheld Boeing's position (BW—Jul. 3'48,p68). However, a National Labor Relations Board trial examiner disagreed in deciding a case brought by I.A.M. He held that the union had given sufficient notice, and ordered Boeing: (1) to negotiate "in good faith" with the union, and (2) to re-employ all strikers without discrimination after the strike settlement.

Neither the court nor the trial examiner's ruling is final. Court action is continuing, on an appeal, and the NLRB must act on the trial examiner's order in the Boeing case. However, Boeing is playing safe; it has offered re-employment to all those who struck.

• **Many Already Back**—Many of the strikers already had decided to return to their jobs—and a regular payroll. By the time the formal back-to-work vote was taken, Boeing's plant employment had climbed back to 8,214, as compared with 14,800 production workers when the strike began. Of the workers who went across picket lines, 2,713 were returned strikers; another 1,058 were former union members who weren't employed in Boeing jobs when the strike started; the rest were new employees recruited by Boeing in a vast hiring program which extended up and down the Pacific Coast and east to Salt Lake City.

The company has promised not only that all strikers who apply will get jobs,



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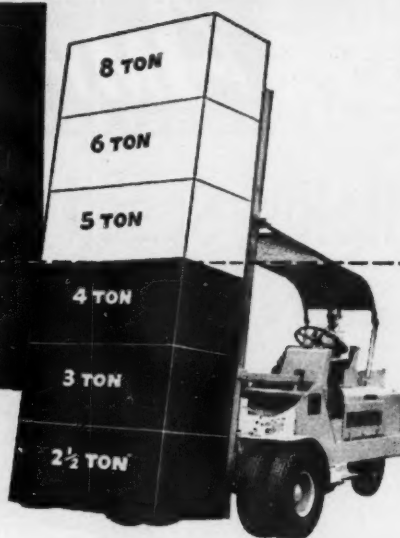
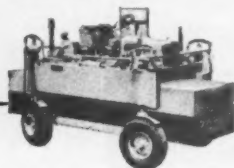
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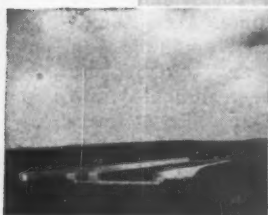


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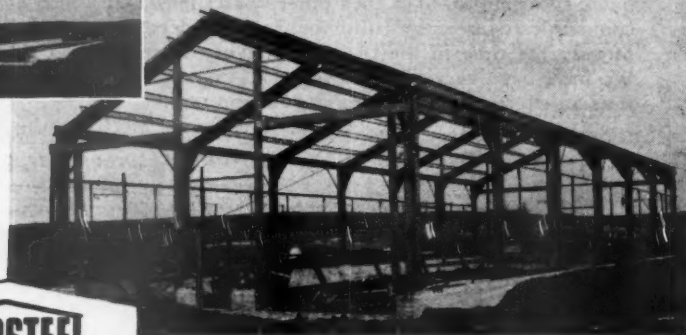
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but also that all new employees will be retained. New aircraft orders in the Air Force expansion program require a bigger staff; normal attrition will be allowed to work off any excess.

• **Gain in Efficiency**—Boeing recently reported that production during the I.A.M. walkout proved that the old seniority clause held down plant efficiency. During the strike, Boeing operated under almost all contract provisions except the seniority rules; in place of these, it announced that ability and performance would be recognized—but where these considerations were equal between employees, seniority would prevail.

The company said that efficiency gained by 25% as a result.

• **More Trouble?**—Boeing still is not sure of labor peace. It now has a problem of jurisdictional strife between I.A.M. and the Teamsters.

Some years ago the A.F.L. executive council awarded conditional jurisdiction at aircraft plants to I.A.M., which was then affiliated with A.F.L. The object was to block C.I.O. organizing drives in aircraft plants. The council stipulated that after plants were safely organized, the Machinists must recognize jurisdictions of craft unions. I.A.M. didn't do so before leaving A.F.L., and it's not likely to do so now that it's out of the federation.

Early in the Boeing strike, Beck asserted the Teamsters' long-dormant craft jurisdiction over warehousemen and drivers. The Machinists protested against A.F.L. "strikebreaking" as the Teamsters ignored picket lines, and began signing up production workers, too. I.A.M. got considerable support from anti-Beck forces in A.F.L. on the West Coast.

However, pressure on the Teamsters' international board to call off Beck's raiders got nowhere this month. The board upheld the West Coast leader completely. Furthermore, the board chartered an Aeronautical Workers, Warehousemen's & Helpers local union for Beck's Boeing recruits.

The new local is trying to get a majority in the whole plant. I.A.M.'s battered forces are just as busy trying to nudge the Teamsters out of the picture. An NLRB election will be required to settle the jurisdictional feuding.

Until it is settled Boeing will be unable to negotiate a new contract, or to get steady operating efficiency—which always is hard to achieve when and where there is interunion friction.

The Pictures—Acme—102; Brown Bros.—19 (left); Harris & Ewing—25 (top); Wide World—19 (right), 65, 89 (bottom), 112, 123.

Umpire Wanted

Fifth U. A. W.-G. M. arbiter fired after holiday-pay decision against union. Finding good successor won't be easy.

The roughest job in American labor arbitration is vacant once more. The United Auto Workers (C.I.O.) and the General Motors Corp. are looking for a new impartial umpire for contract disputes. The fifth holder of the office, Saul Wallen, lost his job last week at auto union demand.

U.A.W. said Wallen's philosophy, as reflected in several rulings, led it to release him. But Detroit labor circles knew that one major opinion by Wallen really prompted the union to demand his resignation. When he refused to quit under fire, U.A.W. discharged him.

• **Key Decision**—That decision involved holiday pay. Six nickel platers on the evening shift at G.M.'s Pontiac Division asked permission to quit early on last New Year's Eve. The request was denied. The men quit work anyway, during lunch periods halfway through the shift. Result: G.M. docked them their holiday pay for New Year's Day—a paid holiday under the contract. The case went through grievance channels up to Wallen.

The umpire upheld G.M. by denying the pay claims of the six employees, and thereby set precedent for a string of similar cases due before him. His position: The contract says that employees "must have worked the last scheduled work day prior to . . . such holiday" in order to collect holiday pay. The purpose of the clause, as Wallen saw it, was to insure work continuity. He ruled that the unauthorized quits by the six men interrupted their work continuity.

• **The Opposite View**—This decision ran counter to a ruling by another auto industry umpire in a similar case last June. Harry Shulman, arbiter for U.A.W. and the Ford Motor Co., ruled that work for part of a day qualified a man for holiday pay. In effect, he said, the aim of the qualifying day's work is to prevent absences which would lengthen holiday vacations. Leaving a job early, according to Shulman, doesn't materially lengthen the time off.

U.A.W. had expected to win the G.M. case, on the basis of the prior Shulman decision. When Wallen ruled the other way, union spokesmen at the arbitration hearing were shocked into extreme wrath. They moved quickly to get Wallen out of the job he took only eight months ago (BW—Jan. 10 '48, p. 83).

• **Uncertain Road**—The union's move again pointed up the fact that the G.M.

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umpire walks an uncertain road. That's because, due to the taut relations between G.M. and U.A.W., decisions are made for keeps. So it probably won't be easy to fill the vacant umpire job soon with a top-notch man.

The discharge may also have another after-effect. In the last contract negotiations, some locals demanded that U.A.W. insist on elimination of the entire umpire system. Holiday-pay row may turn these sporadic grass-roots demands into something more concrete.

• **Faith and Silence**—Nevertheless, U.A.W. and its G.M. Dept. policy-makers reaffirming faith in the umpire system after the ouster action. They denied that the system had been undermined in any way. Company people maintained a rigid silence.

New Union Directory Shows Membership Rise

Union membership still rises—and the Directory of Labor Unions, issued annually by the Bureau of Labor Statistics, is growing with it.

• **Double Thickness**—The directory has more than doubled in size since the last issue a year ago: It's now 64 pages. But the growth doesn't come from more

unions; the directory still lists 197 national labor organizations—105 A.F.L., 37 C.I.O., 55 unaffiliated. (Last year the breakdown was 105, 40, and 52.)

Instead, the added thickness is due to more information. Previous directories listed only a union's address, affiliation, and chief officers. The new one gives you the union's membership total (where available), the name of its publication and editor, and the frequency and date of its conventions. State A.F.L., and C.I.O. offices are also listed.

• **Membership Rises**—The directory tells you, for instance, that union membership has broken another record during the first year of the Taft-Hartley law. It now stands at 15.6-million, a rise of 600,000. The fluctuation in union membership is charted annually back to 1897, when it was about 500,000. There has been a steady rise since 1933, when about 3-million carried union cards.

The directory also reveals that six unions have more than 500,000 members, seven others have more than 100,000. There are small unions, too: 16 collect dues from less than 1,000.

The directory—B. L. S. bulletin No. 937—is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Cost: 20¢.



Back-to-Work Drive Ends Another Strike

Picket-line violence at International Harvester's East Moline, Ill., plant couldn't halt a back-to-work movement last week. As a result, C.I.O.'s leftist Farm Equipment Workers abruptly voted to call off its nine-week strike over job reclassifications. F.E.W. said it wanted to give the company a chance to settle disputed issues at the bar-

gaining table; actually, dissatisfied strikers were beginning to show too much interest in F.E.W.'s right-wing rival in C.I.O.—Walter Reuther's United Auto Workers. U.A.W. settled a seven-plant dispute with International Harvester just two weeks ago (BW—Sep. 11 '48, p. 120). It was ready to step into the fight at East Moline.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

SEPTEMBER 25, 1948



The Berlin issue may not go before the United Nations after all.

The U. S. has agreed to make one last try in Moscow. The French have insisted on this course.

Actually, it gives U. S. foreign-policy chiefs time to make up their own minds about the next step. They all agree that the secret Moscow talks have been a flop. But by midweek they hadn't decided this: Would it be better to stage a public showdown at the U. N. in Paris, or ride out the Berlin blockade with the airlift?

Here are some of the dangers Secretary Marshall and his advisers have to weigh before making a final decision:

(1) Is it wise for the U. S. to force the issue while there's still time for Moscow to launch a war before winter sets in? Washington still discounts the chances of shooting this year. But intelligence reports from Europe are that: Russia has massed large forces in the Ukraine, west of Kiev; Soviet tank production has reached a rate of 60,000 a year; the Russians have developed satisfactory heavy trucks for ground transport.

(2) Can the U. S. be sure that a majority in the U. N. assembly will back up a censure of Russia? We know that the western European nations, especially France, are against a policy of provoking Russia.

(3) Would a U. N. decision against Russia strengthen our hands, even if we could get it? U. S. occupation chiefs in Germany think that Moscow would regard an appeal to the U. N. as a sign of American weakness, (Gen. Clay was against the Moscow talks for the same reason). Clay's people believe our position in Germany is getting stronger every day.

(4) Could an appeal to the U. N. end up with a compromise that would let Russia into western Germany? This could wreck our plans for the Ruhr.

The weakest link in the West's armor is France. In fact, the French political crisis could easily become a worse problem than Berlin before the winter is out.

Washington now expects Gen. de Gaulle to be in power by January. And we have assured the General that we wouldn't regard his government as a Fascist dictatorship.

But U. S. officials see the danger of civil war if de Gaulle takes over. They think there's sure to be Communist sabotage of the French economy—a sort of internal economic blockade.

These officials don't accept de Gaulle's assurances that he can take care of the Communists in a hurry. They expect serious disorders, lasting through next spring.

Meanwhile, the U. S. has to decide soon whether to try to stabilize the Queuille government. We could help by letting Queuille use the French ECA counterpart fund of 150-billion francs to balance his budget. (The counterpart fund is made up of the francs set aside to match ECA grants to France. It can't be used without prior approval from the U. S.)

Discount reports that Britain is launching a big rearmament program.

True, output of some fighter planes is being doubled. The fleet reserve is being refitted.

But the new stuff will merely replace the obsolete equipment on hand.

Orders for military aircraft have had a priority over civilian orders for many months. Military plane makers have also had first call on labor.

Another clew that rearmament hasn't really started: Royal ordnance

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

SEPTEMBER 25, 1948

factories continue to put one-fourth of their production into civilian durable goods.

The British recovery program is beginning to click, despite Labor government controls.

London now is just about balancing its foreign accounts—with the help of ECA money, of course.

One of the things Chancellor Cripps will talk about in Washington next week is Britain's new four-year plan. It details production and capital expansion programs for agriculture, coal, steel, oil refineries, engineering, chemicals, textiles, shipbuilding, public utilities, housing.

A real arms program would throw the four-year plan out of gear. It would bring inflation, more government controls, excess profits taxes, a curb on dividends.

Before there's all-out rearmament in Britain—or western Europe—the U. S. will have to decide this: Should we add a huge lend-lease program to the Marshall Plan?

There's talk in Washington of giving western Germany a special status in the Marshall Plan.

The idea is that money for Bizonia should no longer come out of regular ECA funds. Instead, Congress should make special appropriations.

One of the reasons: to avoid the kind of row ECA just had with the Organization for European Economic Cooperation over Germany's share of the pie. ECA went over OEEC's head to support U. S. occupation officials.

Some people in Washington think this is too drastic a remedy. They argue that western Germany's new government will be able to fight its own battles in OEEC.

General MacArthur wants to cut Japan in on ECA's offshore purchases.

He would like ECA to buy about \$25-million worth of Japanese equipment for China. Included would be power plants, electric motors, construction equipment, structural steel, and pulp and paper equipment.

International Engineering, Inc., a firm headed by former MacArthur aides, would like to act as ECA's agent in Japan.

Current notes on business abroad:

Bethlehem Steel has obtained a license to prospect for iron ore in Nigeria, British colony in West Africa.

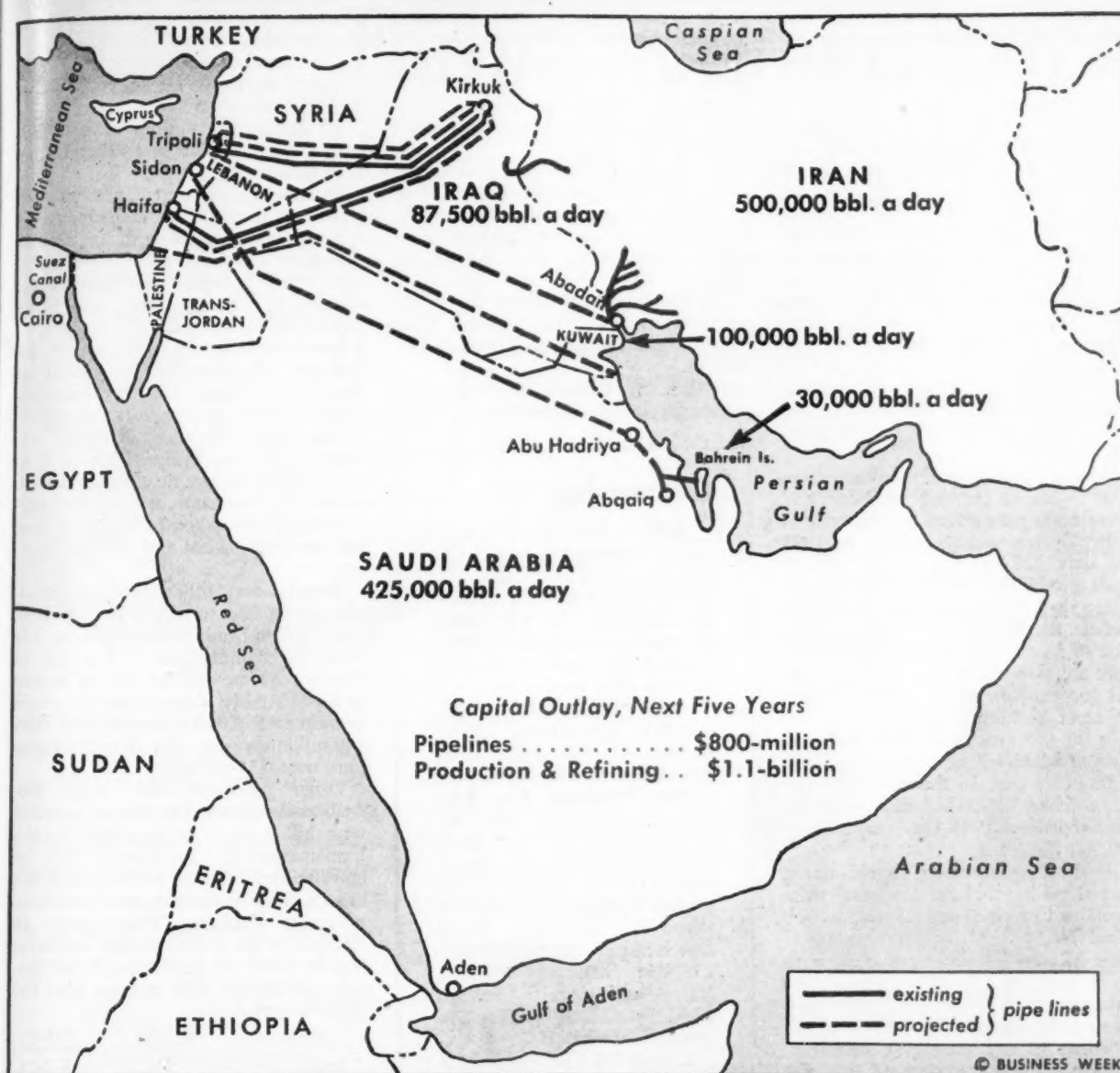
Dobson & Barlow of Bolton, England, will supply China with a complete rayon spinning plant. Capacity will be 2½ tons a day of continuous-filament yarn. The order comes to about \$3-million.

International General Electric Co., Westinghouse Electric International Co., and English Electric Co., Ltd., are competing for an important contract in India—supplying the know-how for a plant to build heavy electric generating equipment. Representatives of the three companies are in New Delhi now talking with the Indian government about the project.

General Motors has licensed Clyde Engineering Co., Ltd., of Sydney, Australia, to build the G.M. line of diesel locomotives. Major components will be supplied from the U. S.

Imperial Tobacco Co., Ltd., of London is behind the formation of Pakistan's biggest single manufacturing enterprise—Pakistan Tobacco Co. The new firm has a paid-up capital of \$18-million.

BUSINESS ABROAD



MIDDLE EAST OIL PRODUCTION, a key to European recovery, has already reached 1.1-million bbl. a day

\$2-Billion Investment Planned for Middle East Oil

Area should be producing 2-million bbl. a day by 1956—barring war, Palestine trouble, and materials shortages.

A \$2-billion investment will be made in Middle East oil over the next five years—if Arab-Israeli differences over Palestine, and the world steel shortage, don't stand in the way.

That is the sum that U. S. and foreign oil companies are planning to put into Middle East producing facilities, refineries, and pipelines.

• **Big Hurdles**—The obstacles to this vast development shouldn't be under-

rated. One big hurdle is political trouble—aggravated last week by the assassination of Count Folke Bernadotte, United Nations mediator for Palestine.

Another is materials trouble. Feeling that pinch is Arabian-American Oil Co., which is building the longest pipeline in the area (map, above). This week it couldn't be sure whether the U. S. government would give it the steel to push

its pipeline across the Arabian desert to the Mediterranean (BW—Jun. 26 '48, p117).

• **Two Reasons**—But, barring war with Russia, there are two good reasons why the obstacles are unlikely to do more than delay oil companies' plans for development of the vast treasurehouse of petroleum in the Middle East.

The first reason is that crude oil from Iran, Iraq, Saudi Arabia, Kuwait can provide the liquid fuel needed to rehabilitate western Europe. At the same time it can conserve for Western Hemisphere use a great part of the oil now

flowing eastward across the Atlantic from Venezuela, Colombia, and the U. S. (Report to Executives, Apr. 5'47).

The second reason is that the Middle East will get direct advantages from development of its oil. Chief of these will be a flow of foreign exchange which should average about \$200-million a year. This money could mean higher living standards, greater industry and employment.

• **High Reserves**—Under the countries surrounding the Persian Gulf lie proved reserves of nearly 32-billion bbl. (By comparison, U. S. proved reserves of crude oil and natural gas liquids amount to 24-billion bbl.) Thus, for a long time to come, the Persian Gulf basin promises to be the world's chief oil-producing area.

Distribution of Middle East oil reserves is (in billions of bbl.): Kuwait, 9; Iran, 8.9; Saudi Arabia, 7; Iraq, 6; Qatar and others, 1.

• **Soaring Production**—Production from these fields is growing by leaps and bounds; it's now about 1.1-million bbl. daily. By comparison, output in 1939 was only 325,000 bbl. a day. (U. S. crude production has been running at better than 5.5-million bbl. daily.) At present, the Middle East is using only a little of its own oil. About 410,000 bbl. daily are shipped to the Far East; the rest goes to Europe and other consuming areas, including the U. S.

In the first quarter of 1948, U. S. imports of Middle East crude were about 1,000 bbl. a day. In the second quarter they reached 32,000 bbl. daily. And for the last half of 1948 they may average 100,000 bbl. daily.

By 1956, production should be at least 2-million bbl. a day, and shipments to Europe about 1.5-million bbl. a day.

• **Big Money**—To provide this oil, both crude and refined, oil companies are planning to spend \$1,924,000,000 between 1948 and 1953. Some of it will be spent in the producing countries, some in the U. S. and other countries where equipment must be bought.

It is estimated that about \$1,250,000,000 has been sunk in Middle East petroleum since the British discovered oil in southwest Iran in 1908. By 1913 the British government had taken over a 51% interest in the Anglo-Iranian Oil Co. (The interest has since risen to 56%.) The next big development was in Iraq; the Kirkuk field was discovered in 1927 and pipelines to the Mediterranean were completed in 1934.

• **U. S. Entry**—Wholly-owned American enterprises entered the Persian Gulf area in the early '30's. Oil was discovered in Bahrain in 1932 and in Saudi Arabia in 1938.

Today about half of Middle East production is in the hands of U. S. companies (box). They have full control in

Saudi Arabia, partial control in Kuwait and Iraq.

• **Breakdown**—The \$1,924,000,000 to be spent during 1948-53 can be broken down eight ways:

(1) Arabian-American Oil Co.'s proposed 30-in. to 31-in. pipeline from Abqaiq to Sidon—\$200-million.

(2) Aramco's producing facilities—\$320-million.

(3) Iraq Petroleum Co.'s proposed 16-in. and 30-in. pipelines from Kirkuk to Tripoli (Syria)—\$180-million. (Iraq Petroleum has another pipeline now under construction, from Kirkuk to Haifa.)

(4) Middle East Pipeline Co.'s proposed 34-in. to 36-in. pipeline from Abadan (and Kuwait) to Tripoli—\$230-million.

(5) Kuwait Eastern Pipeline Co.'s proposed pipeline from Kuwait to an

undetermined terminal on the Mediterranean—\$200-million.

(6) Mediterranean Refining Co.'s proposed 75,000-bbl. refinery on the Mediterranean—\$69-million.

(7) Consolidated Refineries Ltd.'s proposed expansion of its Haifa refineries—\$25-million.

(8) Producing facilities in Iraq, Kuwait, Bahrain, Qatar, and other fields—\$700-million.

Existing and proposed pipelines will be able to move 1.7-million bbl. a day. Refineries now operating in the Middle East have a capacity of 821,000 bbl. a day. When projected developments are completed, refinery capacity will go up to 1.1-million bbl. a day.

• **Benefits**—This huge program is not designed, of course, for the benefit of the Middle East. But it means big money for the governments and people of the region. Part of the money will come in the form of direct payments to governments as royalties, taxes, customs duties. Part will come as local payments for land rentals, labor, purchases of food and materials, social and medical benefits.

Royalty and other fixed payments amount to 20¢ to 22¢ a bbl. in Iran, 22¢ a bbl. in Saudi Arabia and Iraq, 14¢ a bbl. in Bahrain, and 13¢ a bbl. in Kuwait. At the present rate of output in Saudi Arabia, these direct payments amount to \$90,000 a day, or more than \$30-million a year. For Iran the figure runs over \$35-million.

Other payments bulk large, too. Arabian-American Oil Co.'s monthly wage bill is about \$1.5-million. Anglo-Iranian spent \$11.2-million in 1946 on housing and utilities, another \$2.4-million on schools, theatres, work canteens.

• **Foreign Exchange Take**—Here's an estimate of the annual foreign exchange benefit which oil development can provide ten Middle East nations over the 1948-53 period:

	Millions of Dollars	Dollars per Capita
Arabia	\$76.2	\$15.25
Iraq	31.9	7.08
Trans-Jordan	1.0	2.63
Palestine	2.7	1.40
Syria	4.1	1.27
Lebanon	5.4	4.77
Kuwait	24.5	306.00
Bahrain	6.6	55.00
Qatar5	19.25
Trucial Oman5	6.25
Unassigned	1.5	...
Total	\$154.9	\$9.40

• **Sterling and Dollars**—About one-third of this total will be in sterling, the rest in U. S. dollars. In addition, foreign exchange close to \$50-million a year will come from expenditures by foreign staff members, extraordinary fees, and the like. Thus, the total may well run to \$200-million yearly. And this leaves out Iran, which will probably get at least \$50-million a year (mostly in sterling).

Ownership

Arabian American Oil Co., (Trans-Arabian Pipeline Co.)—Standard Oil Co. of California, 30%; Texas Co., 30%; Standard Oil Co. (N. J.), 30%; Socony-Vacuum Oil Co., 10%. (Latter two haven't formally become joint owners yet.)

Anglo-Iranian Oil Co., Ltd.—British government, 56%; Burmah Oil Co., Ltd., 22%; private individuals, 22%.

Iraq Petroleum Co., Ltd. (Principal producer in Iraq; owner of pipelines to Tripoli, Syria and Haifa, Israel)—Anglo-Iranian Oil Co., 23.75%; Compagnie Francaise des Petroles (French), 23.75%; Royal Dutch-Shell (British-Dutch), 23.75%; Standard of New Jersey and Socony-Vacuum, 23.75%; C. S. Gulbenkian (private interest), 5%.

Kuwait Oil Co.—Anglo-Iranian Oil Co., 50%; Gulf Exploration Co., 50%.

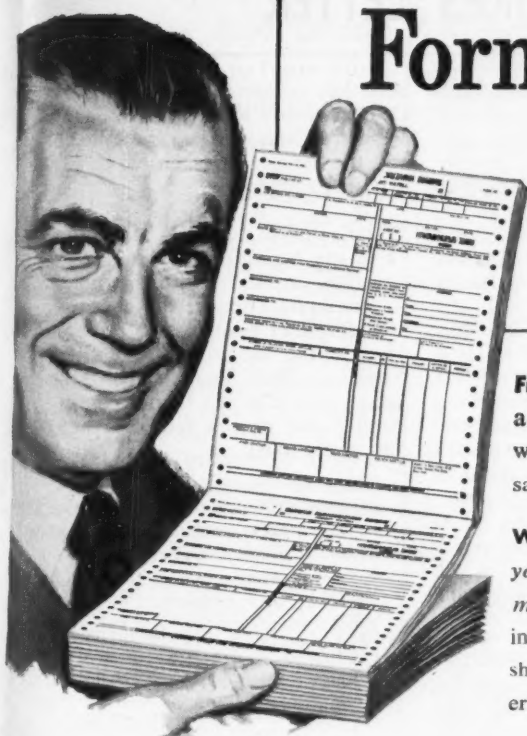
Bahrain Petroleum Co., Ltd.—Standard of California, 50%; Texas Co., 50%.

Middle East Pipe Line Co.—Anglo-Iranian Oil Co., Standard of New Jersey, and Socony-Vacuum Oil Co., joint owners.

Kuwait Eastern Pipe Line Co.—Gulf Oil Corp., and Shell group, joint owners.

Mediterranean Refining Co.—Standard of California, Texas Co., and Socony-Vacuum Oil Co., joint owners.

Consolidated Refineries, Ltd.—Anglo-Iranian Oil Co., and Shell group, joint owners.

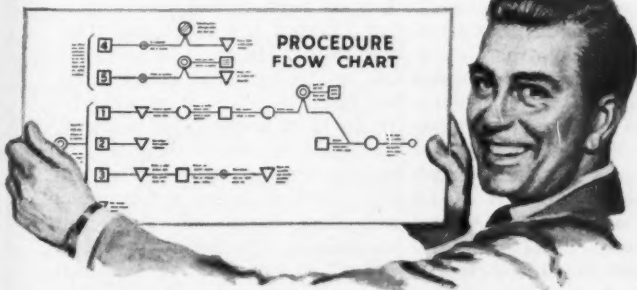


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BUENOS AIRES LETTER

BUENOS AIRES—An important U. S. businessman on a recent visit here asked: Is there any substance to President Peron's oft-repeated threat to get along without U. S. trade?

The best answer to this is the current visit to the U. S. of Orlando Maroglio, president of the Banco Central, Argentina's state bank. It's obvious that Argentina considers the trade situation serious when it sends the president of the nation's No. 1 financial institution trotting up to the U. S. to talk with New York bankers. Argentina knows well enough that it can't afford to shut off North American trade.

One of Maroglio's jobs is to smooth over Argentina's failure to make good on many millions of dollars worth of sight drafts and other due bills held by U. S. banks.

THE CASE is this:

Argentina's dollar supply was so large at the end of the war, and the pent-up demand for U. S. goods so great, that Argentina committed itself to buy more than it could afford before the Banco Central could put the brakes on. To avert further catastrophe, the bank halted all dollar buying last June and has permitted few dollar remittances since.

Maroglio has also had the painful job of refusing dollars on shipments of goods which Banco Central had previously O.K.'d. Here's what happened: Importers got permission to order trucks, machinery, steel, and many other items in the U. S. Then when the goods arrived, Banco Central said it was sorry, but it couldn't furnish the promised dollars. Some U. S. banks paid the original American suppliers—and were left holding the bag.

Banco Central won't say what the debts to the U. S. rolled up in this way amount to. But there is some reason to believe that these debts, plus amounts owed U. S. companies for dividends earned in their Argentine branches, run to about \$200-million.

Maroglio will insist that, despite this record of bad management, Argentina is still a good risk. It is a wealthy nation, all in all, whose credit record over the years is unblemished.

So Maroglio can only ask that the U. S. banks be patient, and be-

lieve that in time they will be paid. Of course, they will want to know: When can Maroglio pay up? When will the damper be taken off U. S. exports to Argentina?

THE BEST THING Maroglio, or any Argentine explaining the situation, can do is to list the more or less liquid assets of the country — its surpluses available for export. Here is the list as the Argentine Economic Boss, Don Miguel Miranda, gave it to the United States Ambassador only a few days ago (in metric tons):

Edible oils (margarine).....	13,000
Linseed oil	325,000
Oilcake (cattle feed).....	618,000
Barley	130,000
Rye	280,000
Wheat	300,000
Oats	442,000
Corn	4,000,000
Quebracho extract (tanning)	23,000
Hides (number of all types)	2,127,000

Maroglio can promise to pay when this list of goods is sold. He probably hopes that half of them can be sold for dollars, particularly now that the Economic Cooperation Administration has allowed Argentina to get a sniff of the off-shore purchase program. (ECA has made token purchases of quebracho for Austria, grain for France.)

THE REASON they haven't already been turned into cash is that Miranda is a tough and stubborn trader. He won't be pressured into selling for what he considers less than his price—or at what he considers an inauspicious moment. He is said to believe there will be another war and that his tremendous stock of hides, for example, will about double in value. But Miranda has now indicated that he will sell at least some of his goods at world prices to Marshall-Plan buyers.

While Miranda fiddles, U. S.-Argentine trade has virtually come to a standstill. A practically endless list of consumer goods is urgent in Argentina today—to say nothing of tractors, road machinery, spare parts, and iron and steel.

But U. S. exporters won't be filling orders for these unless Argentina first finds a dollar market for its surpluses.

Good-Will Payoff

Overseas food parcels bring big business to New York firm. Customers include companies, executives abroad.

There is good business in good will. Last week Fraser, Morris & Co., New York, shipped its 5-millionth food package overseas. That represents about \$32-million worth of business since president Leonard Morris set up shop in 1941.

Morris came from London's 80-year-old wholesale grocery firm of Fraser, Morris & Co., Ltd. He has done so well here that he now speaks of his former parent company as "our London branch." (He is also president of a similar firm in Montreal, Marshall-Ellis Ltd.)

• **Business for Business**—Morris does more than help humane Americans get food to friends and relatives in the "old countries." He has a special line for business firms and exporters with interests overseas. His selling points: Keep your workers overseas happy with food parcels; build up good will against the day your European markets are open again.

Business concerns make up about 30% of Fraser, Morris' customers. Big companies served include International Nickel, Monsanto Chemical, Standard Oil Co. (N. J.), and American Express. Several publishers, motion picture companies, and exporters have taken up the idea, too.

For company deals, Fraser, Morris makes up food packages to specification, usually sends them out in weekly shipments. The largest orders run to around 5,000 individual parcels. Most go to Britain, with Germany and France getting a big share too. Business is just beginning to pick up in the Far East—especially in the Netherlands East Indies, where Fraser, Morris packages are going out to Goodyear Tire & Rubber Co. employees.

• **Executives' Special**—Business executives who want to go abroad with a good stock of victuals get special attention from Fraser, Morris. Morris points with pride to the fact that J. S. Morgan, vice-president of J. P. Morgan & Co., had "easily a ton" of food delivered to him by Fraser, Morris on his recent trip to France and England. The Morgan order included some 400-lb. of hams. Fraser, Morris also supplied world-traveler Bernard Baruch.

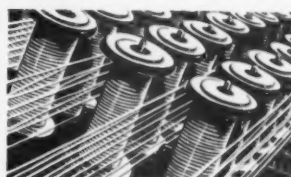
Then there was the case of the son of a U. S. business representative in Norway who fell ill with an obscure blood disease. The doctors prescribed coconuts and oranges. Fraser, Morris was called in and had them air-expressed to Oslo in a jiffy.



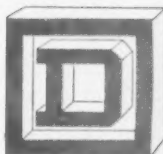
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ECA'S LEDGER

Reports From Washington

ECA is streamlining its operations. The aim is to give U. S. businessmen a better preview of western Europe's commodity needs. Thus, ECA hopes to promote wider use of private trade channels, both here and abroad.

Here's how the new system will work: Marshall-Plan countries will be asked to submit a list of their commodity needs three months before the allocations for a calendar quarter take effect. For its part, ECA will let each western European country know four months in advance just how much money it can draw on.

When ECA makes an allotment to a nation for a quarter, it will take into account purchases that are to be delivered immediately and those to be fulfilled sometime in the future. Roughly half a nation's allotment for a given quarter will be for goods that can be delivered in that quarter. The other half will go to finance goods to be delivered in later quarters.

The authorizations will allow purchases of items within any of 70-odd broad commodity groups—such as machine tools, motor vehicles, electrical apparatus, or construction and mining equipment. Unlike now, detailed specifications won't be laid down. Nor will a specific country be earmarked as the country of origin of the good. For example, Britain may be authorized to buy \$10-million worth of construction equipment anywhere in the Western Hemisphere. ECA has given up naming a specific country of origin because it makes planning too rigid. And it makes it easy for suppliers to up prices.

Other developments:

• **Allotments**—Now that the Organization for European Economic Cooperation has agreed on how it wants to split up dollar aid for the first Marshall-Plan year, ECA is ready for a big push. Last week \$1,729,000,000 was allotted to OEEC nations. This money will finance goods to be delivered during the fourth calendar quarter of 1948 and the first two quarters of 1949.

That leaves only \$786-million not earmarked from the first year's appropriation. It means Marshall-Plan buying will drop off sharply after Jan. 1—until Congress acts on second-year appropriations.

How much of last week's allotments will be in loans, how much in grants, is still not announced.

• **Procurement Authorizations**—For the week ended Sept. 15, authorizations totaled \$239-million—the biggest week yet.

Food—the biggest single item on

the list—accounted for \$88.9-million.

Nearly \$13-million was for machine tools, transportation equipment, and other industrial machinery. Coal and petroleum products totaled \$44-million.

Argentina again cropped up on the offshore purchase list—supplying \$356,000 worth of hides to Bizonia. ECA has about decided to do business with Peron's government when the goods involved are sold at world prices. Czechoslovakia was also on the list—\$3-million worth of freight cars for Bizonia. Eastern Germany made a rare appearance, supplying Austria with a small order of potash.

Reports From Abroad

J. G. White Engineering Corp., New York, has landed the job of coordinating the \$70-million reconstruction program provided for under the China Aid Act. ECA has approved a partial list of the projects to be undertaken. They include: \$10.5-million for railroad rehabilitation (\$5-million for the war-wrecked Canton-Hankow line); \$7.6-million for power projects; \$1-million for the state-owned Taiwan Sugar Corp., mentioned as backing for the new Chinese currency (BW—Sep. 11 '48, p. 126).

For "contingencies and price increases," \$12.7-million was set aside.



French Self-Service

As the sign on the window boasts, this is the first self-service market in Paris. Modeled along American lines, customers pick out the items they want, collect them in hand-held wire baskets. No more walking from the green grocer's, to the wine store, to the butcher's, to the poulterer's. Everything's under the same roof. The store is in a teeming working quarter, where its owner, Pierre Goulet, figured that people would be quicker to take to self-service than tradition-bound bourgeois.

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THE TREND

What Price Labor Peace?

Two years ago Clinton S. Golden, a high-placed labor union official, said: "Every seven or eight years since 1876, the government of the United States, through congressional committees or through presidentially appointed commissions, has been making inquiries into the causes of industrial conflict and strife. In my opinion, the time has come when, instead of looking into the causes of conflict that we know and hear so much about, we ought to try to discover how much peace there is and what makes peace."

His proposal finally led to the creation of a committee by the National Planning Assn. on the Causes of Industrial Peace Under Collective Bargaining. The first fruits of its work were made public last week: a case study on Crown Zellerbach Corp. and the West Coast pulp and paper industry (BW—Sep. 18'48, p10). The record tells of 14 years of strikefree labor-management relations.

Credit for the peaceful conditions is given to: (1) management's willingness to accept unionism; (2) the unions' observance of their contract pledges; (3) the settlement of controversies without resort to third parties; (4) the conduct of negotiations without undue delay; and (5) the mutual discussion of a wide range of subjects. These are the main answers to the question: "What makes peace?"

That question quickly leads to another: "What price labor peace?"

The Price to be Paid

Peace, of course, is rarely a gift. There usually is a price tag attached to it. It may be cheaply bought; it may be dearly bought. Douglas Jerrold, an English dramatist and editor of the 19th century, coined a familiar phrase when he said: "We love peace, but not peace at any price."

Peace between nations is a much-sought-after goal. Great concessions have been made to achieve international harmony. Sometimes, concessions have been so great—such as those made at Munich in an effort to appease Hitler—that they have defeated their own purpose.

Management, too, cannot afford to pay any price to obtain labor peace. So it is important to know how much giving had to be done by management in the West Coast paper industry to achieve more than a decade of good labor relations. It is important to learn whether management's sacrifices were so large that peace was too dearly purchased.

For the answer, we can only resort to the N.P.A. case study at this time. It reveals:

(1) Unions have succeeded in wresting from employers some rights to a voice in decisions that management once made by itself. Naturally, management did not relish giving up any of the rights it had formerly held on an exclusive basis. But a general line has been drawn, ac-

cording to the report, which is sufficiently acceptable to both parties so that no strikes or lockouts have been occasioned in a battle over prerogatives.

(2) Decision-making is now shared on such problems as wage determination, discharges, promotions, safety, and vacation and other benefits. In addition, management representatives consult constantly with local union leaders on a wide variety of operating problems. Management retains control over hiring, technological change, and the speed and assignment of work.

(3) The right to direct turned out to be the single managerial right which produced the toughest dispute. The issue was brought to a head by two controversies in 1946—both over company orders for compulsory overtime. So, at the time of 1947 negotiations, the unions proposed a formal amendment to the contract; they wanted to require the local union's approval before overtime work could be ordered—except in case of an emergency. Management opposed this.

Where Management Stands

An employer spokesman did an excellent job in stating management's position on this issue:

"The point we have in mind is that, in this setup, somebody must call the signals on this team; we feel that it must be the supervisor in charge, the management of the mill, who calls the signals in the interest of the whole team. Those signals must be obeyed. There is going to be, from time to time, some unwise signal called. We want the tightest possible assurance in the agreement that will correct any such decision when it works a hardship or an injustice on the employee.

"At the same time, we want the employee, for the sake of the group of which he is a member, as well as the employer to whom he is selling his time, to recognize that the quarterback and no one else calls the signals . . .

"We have a setup with protections, which possibly can be stronger . . . but we are still unwilling to surrender what we always had, and that is responsibility for calling the signals and issuing the directions."

The unions reluctantly accepted that position after getting further guarantees for the speeding up of the grievance procedures. But the right to direct is still an issue which may not be permanently settled.

As the report states, management's right to manage is at stake. The surrender of that right, in our opinion, would be a prohibitive price to pay for labor peace. If management in the West Coast paper industry had paid that price, we would say that the peace they bought was not worth it. And it would be ridiculous to speak of genuine industrial peace under free collective bargaining when management in any industry is compelled to relinquish its essential rights.

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